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ABSTRACT

This report presents the first information from the 2002 National Survey on Drug Use and Health (NSDUH), an annual survey of the civilian, noninstitutionalized population of the United States aged 12 years old or older. Prior to 2002, the survey was called the National Household Survey on Drug Abuse (NHSDA). This initial report on the 2002 data presents national estimates of rates of use, numbers of users, and other measures related to illicit drugs, alcohol, and tobacco products. Measures related to mental health problems also are included. The results from the 2002 NSDUH are given in this report, which has separate chapters that discuss the national findings on eight topics: use of illicit drugs; use of alcohol; use of tobacco products; trends in lifetime use of substances; trends in initiation of substance use; prevention-related issues; substance dependence, abuse, and treatment; and mental health. A final chapter summarizes the results and discusses key findings in relation to other research and survey results. Technical appendices describe the survey, provide technical details on the survey methodology, discuss the effects of survey protocol changes on trend measurement, offer key NSDUH definitions, discuss other sources of data, list the references cited in the report (as well as other relevant references), and present selected tabulations of estimates. (Contains 132 references, 90 tables, and 51 figures.) (GCP)

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National Survey on Drug Use and Health Series: H-22

Results From the 2002 National Survey on Drug Use and Health: National Findings

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The Office of Applied Studies (OAS) serves as a focal point for data collection, analyses, and dissemination activities on the incidence and prevalence of substance abuse, the distribution and characteristics of substance abuse treatment facilities and services, and the costs and outcomes of substance abuse treatment programs. Both National and State-by-State data are available. Three major surveys provide information used by OAS:

- **National Household Survey on Drug Abuse (NHSDA).** The NHSDA provides information on the prevalence of substance use in the population, and the problems associated with use. The survey collects information on the sociodemographic characteristics of users, patterns of use, treatment, perceptions of risk, criminal behavior, and mental health. Since 1999, the NHSDA sample has been designed to provide State-level estimates, based on 70,000 respondents per year.
- **Drug Abuse Warning Network (DAWN).** The DAWN obtains information on drug-related admissions to emergency departments and drug-related deaths identified by medical examiners.
- **Drug and Alcohol Services Information System (DASIS).** The DASIS consists of three data sets (I-SATS, N-SSATS, and TEDS) developed with State governments. These data collection efforts provide National and State-level information on the substance abuse treatment system.

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The Substance Abuse and Mental Health Services Administration (SAMHSA), Office of Applied Studies (OAS) Web site contains highlights from the latest OAS report, data on specific drugs of abuse, and publications of alcohol, tobacco, and illegal drug use. It presents both National and State-by-State data. The Web site also contains data that have not been published, such as detailed tables of data from the NHSDA and DAWN, and substance abuse treatment admissions data by State from DASIS, as well as methodological reports.

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Results from the 2002 National Survey on Drug Use and Health: National Findings

ERRATA SHEET

Please make the following correction: The age with the highest rate of driving under the influence of an illicit drug in the past year is "21" not "18" as printed in the publication. This correction is in the web version which can be found at http://www.samhsa.gov/oas/nhsda.htm The entire bullet containing the correction is presented below (with the corrected text in bold and underline):

Page 2, the last bullet in the Illicit Drug Use section should read as follows:

- In 2002, an estimated 11.0 million persons reported driving under the influence of an illicit drug during the past year. This corresponds to 4.7 percent of the population aged 12 or older. The rate was 10 percent or greater for each age from 17 to 25, with **21** year olds reporting the highest rate of any age (18.0 percent). Among adults aged 26 or older, the rate was 3.0 percent.

Page 21, the bullet titled: "Driving Under the Influence of Illicit Drugs" should read as follows:

Driving Under the Influence of Illicit Drugs

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Overview of Findings from the 2002 National Survey on Drug Use and Health

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Page 5, the last bullet in the Illicit Drug Use section should read as follows:

- In 2002, an estimated 11.0 million persons reported driving under the influence of an illicit drug during the past year. This corresponds to 4.7 percent of the population aged 12 or older. The rate was 10 percent or greater for each age from 17 to 25, with **21** year olds reporting the highest rate of any age (18.0 percent). Among adults aged 26 or older, the rate was 3.0 percent.

Page 14, the paragraph titled: "Driving Under the Influence of Illicit Drugs." should read as follows:

Driving Under the Influence of Illicit Drugs. In 2002, an estimated 11.0 million persons reported driving under the influence of an illicit drug during the past year. This corresponds to 4.7 percent of the population aged 12 or older. The rate was 10 percent or greater for each age from 17 to 25, with **21** year olds reporting the highest rate of any age (18.0 percent). Among adults aged 26 or older, the rate was 3.0 percent.

Results from the 2002 National Survey on Drug Use and Health: National Findings

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration
Office of Applied Studies

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Highlights

This report presents, for the first time, information from the 2002 National Survey on Drug Use and Health (NSDUH). This survey, formerly called the National Household Survey on Drug Abuse (NHSDA), is a project of the Substance Abuse and Mental Health Services Administration (SAMHSA). This survey was initiated in 1971 and is the primary source of information on the use of illicit drugs, alcohol, and tobacco by the civilian, noninstitutionalized population of the United States aged 12 years old or older. The survey interviews approximately 67,500 persons each year.

Because of improvements to the survey in 2002, estimates from the 2002 NSDUH should not be compared with estimates from the 2001 and earlier NHSDAs to assess change over time in substance use. Therefore, the 2002 data constitute a new baseline for tracking trends in substance use and other measures. However, it is possible to develop trend estimates based on respondents' reports of past substance use in the 2002 NSDUH. The estimates are presented in terms of lifetime and first-time substance use.

Illicit Drug Use

- In 2002, an estimated 19.5 million Americans, or 8.3 percent of the population aged 12 or older, were current illicit drug users. Current drug use means use of an illicit drug during the month prior to the survey interview.

- Marijuana is the most commonly used illicit drug, with a rate of 6.2 percent. Of the 14.6 million past month marijuana users in 2002, about one third, or 4.8 million persons, used it on 20 or more days in the past month.

- In 2002, an estimated 2.0 million persons (0.9 percent) were current cocaine users, 567,000 of whom used crack. Hallucinogens were used by 1.2 million persons, including 676,000 users of Ecstasy. There were an estimated 166,000 current heroin users.

- An estimated 6.2 million persons, or 2.6 percent of the population aged 12 or older, were current users of psychotherapeutic drugs taken nonmedically. An estimated 4.4 million used pain relievers, 1.8 million used tranquilizers, 1.2 million used stimulants, and 0.4 million used sedatives.

- In 2002, approximately 1.9 million persons aged 12 or older had used OxyContin nonmedically at least once in their lifetime.

- Among youths aged 12 to 17, 11.6 percent were current illicit drug users. The rate of use was highest among young adults (18 to 25 years) at 20.2 percent. Among adults aged 26 or older, 5.8 percent reported current illicit drug use.

- Among pregnant women aged 15 to 44 years, 3.3 percent reported using illicit drugs in the month prior to their interview. This rate was significantly lower than the rate among women aged 15 to 44 who were not pregnant (10.3 percent).

- The rates of current illicit drug use were highest among American Indians/Alaska Natives (10.1 percent) and persons reporting two or more races (11.4 percent). Rates were 9.7 percent for blacks, 8.5 percent for whites, and 7.2 percent for Hispanics. Asians had the lowest rate at 3.5 percent.

- Among youths aged 12 to 17, the rate of current illicit drug use among American Indians/Alaska Natives (20.9 percent) was significantly higher than the rate among all youths (11.6 percent), and the rate among Asian youths (4.8 percent) was significantly lower compared with the overall rate for all youths.

- An estimated 17.4 percent of unemployed adults aged 18 or older were current illicit drug users in 2002 compared with 8.2 percent of those employed full time and 10.5 percent of those employed part time. However, most drug users were employed. Of the 16.6 million illicit drug users aged 18 or older in 2002, 12.4 million (74.6 percent) were employed either full or part time.

- In 2002, an estimated 11.0 million persons reported driving under the influence of an illicit drug during the past year. This corresponds to 4.7 percent of the population aged 12 or older. The rate was 10 percent or greater for each age from 17 to 25, with 18 year olds reporting the highest rate of any age (18.0 percent). Among adults aged 26 or older, the rate was 3.0 percent.

Alcohol Use

- An estimated 120 million Americans aged 12 or older reported being current drinkers of alcohol in the 2002 survey (51.0 percent). About 54 million (22.9 percent) participated in binge drinking at least once in the 30 days prior to the survey, and 15.9 million (6.7 percent) were heavy drinkers.

- The prevalence of current alcohol use increased with increasing age in 2002, from 2.0 percent at age 12 to 6.5 percent at age 13, 13.4 percent at age 14, 19.9 percent at age 15, 29.0 percent at age 16, and 36.2 percent at age 17. The rate reached a peak of 70.9 percent for persons 21 years old.

- About 10.7 million persons aged 12 to 20 reported drinking alcohol in the month prior to the survey interview in 2002 (28.8 percent of this age group). Of these, nearly 7.2 million (19.3 percent) were binge drinkers and 2.3 million (6.2 percent) were heavy drinkers.

- About 1 in 7 Americans aged 12 or older in 2002 (14.2 percent, or 33.5 million persons) drove under the influence of alcohol at least once in the 12 months prior to the interview.

Tobacco Use

- An estimated 71.5 million Americans (30.4 percent of the population aged 12 or older) reported current use (past month use) of a tobacco product in 2002. About 61.1 million (26.0 percent) smoked cigarettes, 12.8 million (5.4 percent) smoked cigars, 7.8 million (3.3 percent) used smokeless tobacco, and 1.8 million (0.8 percent) smoked tobacco in pipes.

- A higher proportion of males than females aged 12 or older smoked cigarettes in 2002 (28.7 vs. 23.4 percent). However, among youths aged 12 to 17, girls were slightly more likely than boys to smoke (13.6 vs. 12.3 percent).

- In 2002, 17.3 percent of pregnant women aged 15 to 44 smoked cigarettes in the past month compared with 31.1 percent of nonpregnant women of the same age group.

Trends in Lifetime Substance Use

- The percentage of youths aged 12 to 17 who had ever used marijuana declined slightly from 2001 to 2002 (21.9 to 20.6 percent). Among young adults aged 18 to 25, the rate increased slightly from 53.0 percent in 2001 to 53.8 percent in 2002.

- The percentage of youths aged 12 to 17 who had ever used cocaine increased slightly from 2001 to 2002 (2.3 to 2.7 percent). Among young adults aged 18 to 25, the rate increased slightly from 14.9 percent in 2001 to 15.4 percent in 2002.

- Lifetime nonmedical pain reliever prevalence among youths aged 12 to 17 increased from 2001 (9.6 percent) to 2002 (11.2 percent), continuing an increasing trend from 1989 (1.2 percent). Among young adults aged 18 to 25, the rate increased from 19.4 percent in 2001 to 22.1 percent in 2002. The young adult rate had been 6.8 percent in 1992.

- The rate of lifetime cigarette use among youths aged 12 to 17 declined from 37.3 percent in 2001 to 33.3 percent in 2002.

- The rate of lifetime daily cigarette use among youths aged 12 to 17 declined from 10.6 percent in 2001 to 8.2 percent in 2002. There also was a small decline in lifetime prevalence among young adults (37.7 to 37.1 percent) from 2001 to 2002.

Trends in Initiation of Substance Use (Incidence)

- There were an estimated 2.6 million new marijuana users in 2001. This number is similar to the numbers of new users each year since 1995, but above the number in 1990 (1.6 million).

- Pain reliever incidence increased from 1990, when there were 628,000 initiates, to 2000, when there were 2.7 million. In 2001, the number was 2.4 million, not significantly different from 2000.

- The number of new daily cigarette smokers decreased from 2.1 million in 1998 to 1.4 million in 2001. Among youths under 18, the number of new daily smokers decreased from 1.1 million per year between 1997 and 2000 to 757,000 in 2001. This corresponds to a decrease from about 3,000 to about 2,000 new youth smokers per day.

Youth Prevention-Related Measures

- Among youths indicating that "smoking marijuana once a month" was a "great risk," only 1.9 percent indicated that they had used marijuana in the past month. However, among youths who indicated "moderate, slight, or no risk," the prevalence rate was almost 6 times larger (11.3 percent).

- The percentages of youths reporting that it was fairly or very easy to obtain specific drugs were 55.0 percent for marijuana, 25.0 percent for cocaine, 19.4 percent for LSD, and 15.8 percent for heroin.

- Most youths (89.1 percent) reported that their parents would strongly disapprove of their trying marijuana once or twice. Among these youths, only 5.5 percent had used marijuana in the past month. However, among youths who perceived that their parents would only somewhat disapprove or neither approve nor disapprove of their trying marijuana, 30.2 percent reported past month use of marijuana.

Substance Dependence or Abuse

- An estimated 22.0 million Americans in 2002 were classified with substance dependence or abuse (9.4 percent of the total population aged 12 or older). Of these, 3.2 million were classified with dependence on or abuse of both alcohol and illicit drugs, 3.9 million were dependent on or abused illicit drugs but not alcohol, and 14.9 million were dependent on or abused alcohol but not illicit drugs.

- Among persons aged 12 or older in 2002, the rate of substance dependence or abuse was highest among American Indians/Alaska Natives (14.1 percent). The next highest rate was among persons reporting two or more races (13.0 percent). Asians had the lowest rate of dependence or abuse (4.2 percent). The rate was similar among blacks and whites (9.5 and 9.3 percent, respectively). Among Hispanics, the rate was 10.4 percent.

- In 2002, an estimated 19.7 percent of unemployed adults aged 18 or older were classified with dependence or abuse, while 10.6 percent of full-time employed adults and 10.5 percent of part-time employed adults were classified as such. However, most adults with substance dependence or abuse were employed either full or part time. Of the 19.8 million adults classified with dependence or abuse, 15.3 million (77.1 percent) were employed.

Treatment and Treatment Need for Substance Problems

- An estimated 3.5 million people aged 12 or older (1.5 percent of the population) received some kind of treatment for a problem related to the use of alcohol or illicit drugs in the 12 months prior to being interviewed in 2002. Of these, 2.2 million received treatment for alcohol during their most recent treatment. An estimated 974,000 persons received treatment for marijuana, 796,000 persons for cocaine, 360,000 for pain relievers, and 277,000 for heroin. Most people receiving treatment received it at a "specialty" substance abuse facility (2.3 million).

- In 2002, the estimated number of persons aged 12 or older needing treatment for an illicit drug problem was 7.7 million (3.3 percent of the total population). Of these persons, 1.4 million (18.2 percent) received treatment for drug abuse at a specialty substance abuse facility in the past 12 months. Of the 6.3 million people who needed drug treatment but did not receive treatment at a specialty facility in 2002, an estimated 362,000 (5.7 percent) reported that they felt they needed treatment for their drug problem. This included an estimated 88,000 (24.4 percent) who reported that they made an effort but were unable to get treatment and 274,000 (75.6 percent) who reported making no effort to get treatment.

- In 2002, the estimated number of persons aged 12 or older needing treatment for an alcohol problem was 18.6 million (7.9 percent of the total population). Of these, 8.3 percent (1.5 million) received alcohol treatment at a specialty substance abuse facility in the past 12 months. Of the 17.1 million people who needed but did not receive alcohol treatment, an estimated 761,000 (4.5 percent) reported that they felt they needed treatment for their alcohol problem. Of the 761,000 persons, 266,000 (35 percent) reported that they made an effort but were unable to get treatment, and 495,000 (65 percent) reported making no effort to get treatment.

- Among the 1.4 million persons who received specialty treatment for an illicit drug problem in the past year, 33.9 percent reported "own savings or earnings" as a source of payment for their most recent specialty treatment. An estimated 30.0 percent reported private health insurance, 26.1 percent reported Medicaid, and 23.3 percent reported public assistance other than Medicaid as a source of payment.

- Among the 1.5 million persons who received specialty treatment for an alcohol problem in the past year, 46.3 percent reported "own savings or earnings" as a source of payment for their most recent specialty treatment. An estimated 31.7 percent reported using private health insurance, 21.5 percent reported public assistance other than Medicaid, and 21.4 percent reported Medicaid.

Serious Mental Illness among Adults

- In 2002, there were an estimated 17.5 million adults aged 18 or older with serious mental illness (SMI). This represents 8.3 percent of all adults. Rates of SMI were highest for persons aged 18 to 25 (13.2 percent) and lowest for persons aged 50 or older (4.9 percent). The percentage of females with SMI was higher than the percentage of males (10.5 vs. 6.0 percent).

- Adults who used illicit drugs were more than twice as likely to have SMI as adults who did not use an illicit drug. In 2002, among adults who used an illicit drug in the past year, 17.1 percent had SMI in that year, while the rate was 6.9 percent among adults who did not use an illicit drug.

- SMI was highly correlated with substance dependence or abuse. Among adults with SMI in 2002, 23.2 percent (4.0 million) were dependent on or abused alcohol or illicit drugs, while the rate among adults without SMI was only 8.2 percent.

- Among adults with substance dependence or abuse, 20.4 percent had SMI. The rate of SMI was 7.0 percent among adults who were not dependent on or abusing a substance.

Treatment for Mental Health Problems

- In 2002, an estimated 27.3 million adults (13.0 percent) received mental health treatment in the 12 months prior to the interview.

- Among the 17.5 million adults with SMI in 2002, 8.4 million (47.9 percent) received treatment for a mental health problem in the 12 months prior to the interview.

- Among adults with SMI, 30.5 percent perceived an unmet need for mental health treatment in the 12 months prior to their interview. The most often reported reasons for not getting needed treatment were "could not afford the cost" (44.3 percent) and "did not know where to go for services" (20.5 percent).

- In 2002, an estimated 4.8 million youths aged 12 to 17 received treatment or counseling for emotional or behavior problems in the year prior to the interview. This represents 19.3 percent of this population.

- The reason cited most often by youths for their latest treatment session was "felt depressed" (49.5 percent of youths receiving treatment), followed by "breaking rules or acting out" (26.7 percent), "thought about killing self or tried to kill self" (19.5 percent), and "felt very afraid or tense" (19.5 percent).

- The rate of mental health treatment among youths who used illicit drugs in the past year (26.7 percent) was higher than the rate among youths who did not use illicit drugs (17.2 percent).

1. Introduction

This report presents the first information from the 2002 National Survey on Drug Use and Health (NSDUH), an annual survey of the civilian, noninstitutionalized population of the United States aged 12 years old or older. Prior to 2002, the survey was called the National Household Survey on Drug Abuse (NHSDA). This initial report on the 2002 data presents national estimates of rates of use, numbers of users, and other measures related to illicit drugs, alcohol, and tobacco products. Measures related to mental health problems also are included. State-level estimates from NSDUH, based on a complex small area estimation (SAE) method, will be presented in other reports to be released separately.

Because of improvements to the survey in 2002, estimates from the 2002 NSDUH should not be compared with estimates from the 2001 and earlier NHSDAs to assess change over time in substance use. Therefore, the 2002 data will constitute a new baseline for tracking trends in substance use and other measures.

1.1. Summary of NSDUH

NSDUH is the primary source of statistical information on the use of illegal drugs by the U.S. population. Conducted by the Federal Government since 1971, the survey collects data by administering questionnaires to a representative sample of the population through face-to-face interviews at their place of residence. The survey is sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA) and is planned and managed by SAMHSA's Office of Applied Studies (OAS). Data collection is conducted by RTI International, Research Triangle Park, North Carolina.[1] This section briefly describes the survey methodology. A more complete description is provided in Appendix A.

NSDUH collects information from residents of households, noninstitutional group quarters (e.g., shelters, rooming houses, dormitories), and civilians living on military bases. Persons excluded from the survey include homeless persons who do not use shelters, military personnel on active duty, and residents of institutional group quarters, such as jails and hospitals. Appendix E describes surveys that cover populations outside the NSDUH sampling frame.

Since 1999, the NSDUH interview has been carried out using computer-assisted interviewing (CAI). The survey uses a combination of computer-assisted personal interviewing (CAPI) conducted by the interviewer and audio computer-assisted self-interviewing (ACASI). Use of ACASI is designed to provide the respondent with a highly private and confidential means of responding to questions and to increase the level of honest reporting of illicit drug use and other sensitive behaviors.

Consistent with the 1999 through 2001 surveys, the 2002 NSDUH employed a 50-State sample design with an independent, multistage area probability sample for each of the 50 States and the District of Columbia. The eight States with the largest population (which together account for 48 percent of the total U.S. population aged 12 or older) were designated as large sample States (California, Florida, Illinois, Michigan, New York, Ohio, Pennsylvania, and Texas). For these States, the design provided a sample sufficient to support direct State estimates. For the remaining 42 States and the District of Columbia, smaller, but adequate, samples were selected to support State estimates using small area estimation (SAE) techniques. The design also oversampled youths and young adults, so that each State's sample was approximately equally distributed among three major age groups: 12 to 17 years, 18 to 25 years, and 26 years or older.

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[1] RTI International is a trade name of Research Triangle Institute.

Nationally, 136,349 addresses were screened for the 2002 survey, and 68,126 completed interviews were obtained. The survey was conducted from January through December 2002. Weighted response rates for household screening and for interviewing were 90.7 and 78.9 percent, respectively. See Appendix B for more information on NSDUH response rates.

1.2. Trend Measurement

Although the design of the 2002 NSDUH is similar to the design of the 1999 through 2001 surveys, there are important methodological differences in the 2002 survey that affect the 2002 estimates. Besides the name change, each NSDUH respondent is now given an incentive payment of $30. These changes, both implemented in 2002, resulted in a substantial improvement in the survey response rate. The changes also affected respondents' reporting of many critical items that are the basis of prevalence measures reported by the survey each year. Further, the 2002 data could have been affected by improved data collection quality control procedures that were introduced in the survey beginning in 2001. In addition, new population data from the 2000 decennial census recently became available for use in NSDUH sample weighting procedures, resulting in another discontinuity between the 2001 and 2002 estimates. **Analyses of the effects of each of these factors on NSDUH estimates (see Appendix C) have shown that 2002 data should not be compared with 2001 and earlier NHSDA data to assess changes over time. Therefore, this report presents data only from the 2002 NSDUH.**

Using only the 2002 data, however, limited trend assessment can be done using information collected in NSDUH on prior substance use. Specifically, questions on age at first use of substances, in conjunction with respondents' ages and interview dates, provide data that can be used to estimate the rates of first-time use (incidence), as well as the rates of lifetime prevalence (the percentage of the population that has ever used each substance) for years prior to 2002. Trends in these measures for youths and young adults are discussed in Chapters 5 and 6. Additional discussion of trends, including a comparison with the Monitoring the Future (MTF) study, is included in the final discussion in Chapter 10.

The methodological changes made to NSDUH in 2002 improved the quality of the data provided by the survey. As is typically the case in ongoing surveys, adjustments in survey procedures must be made periodically in order to maintain data quality in the context of the changing environment in which surveys are conducted (e.g., a general decline in the U.S. population's willingness to participate in surveys). OAS will continue to explore and test improvements to the survey design, but no additional changes to the survey that could impact trend measurement will be implemented in the foreseeable future. Thus, subsequent reports of NSDUH data will provide detailed analyses of trends in current substance use and other measures, with the 2002 estimates from this report providing the new baseline for measuring change.

1.3. Format of Report and Explanation of Tables

The results from the 2002 NSDUH are given in this report, which has separate chapters that discuss the national findings on eight topics: use of illicit drugs; use of alcohol; use of tobacco products; trends in lifetime use of substances; trends in initiation of substance use; prevention-related issues; substance dependence, abuse, and treatment; and mental health. A final chapter summarizes the results and discusses key findings in relation to other research and survey results. Technical appendices describe the survey, provide technical details on the survey methodology, discuss the effects of survey protocol changes on trend measurement, offer key NSDUH definitions, discuss other sources of data, list the references cited in the report (as well as other relevant references), and present selected tabulations of estimates.

Tables and text present prevalence measures for the population in terms of both the number of substance users and the rate of use for illicit drugs, alcohol, and tobacco products. Tables show estimates of drug use prevalence by lifetime (i.e., ever used), past year, and past month use. Analyses focus primarily on past month use, which also is referred to as "current use."

Data are presented for racial/ethnic groups in several categorizations, based on the level of detail permitted by the sample. Because respondents were allowed to choose more than one racial group, a "two or more races" category is presented that includes persons who reported more than one category among the seven basic groups listed in the survey question (white, black/African American, American Indian or Alaska Native, Native Hawaiian, other Pacific Islander, Asian, other). It should be noted that, except for the "Hispanic or Latino" group, the race/ethnicity groups discussed in this report include only non-Hispanics. The category "Hispanic or Latino" includes Hispanics of any race. Also, more detailed categories describing specific subgroups were obtained from survey respondents if they reported either Asian race or Hispanic ethnicity.

Data also are presented for four U.S. geographic regions and nine geographic divisions within these regions. These regions and divisions, defined by the U.S. Bureau of the Census, consist of the following groups of States:

> ***Northeast Region*** - *New England Division:* Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; *Middle Atlantic Division:* New Jersey, New York, Pennsylvania.
>
> ***Midwest Region*** - *East North Central Division:* Illinois, Indiana, Michigan, Ohio, Wisconsin; *West North Central Division:* Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota.
>
> ***South Region*** - *South Atlantic Division:* Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia; *East*

South Central Division: Alabama, Kentucky, Mississippi, Tennessee; ***West South** Central Division:* Arkansas, Louisiana, Oklahoma, Texas.

West Region - *Mountain Division:* Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming; *Pacific Division:* Alaska, California, Hawaii, Oregon, Washington.

Geographic comparisons also are made based on county type, which reflects different levels of urbanicity and metropolitan area inclusion of counties. For this purpose, counties are grouped based on "Rural-Urban Continuum Codes" developed by the U.S. Department of Agriculture (Butler & Beale, 1994). Each county is either inside or outside a metropolitan statistical area (MSA), as defined by the Office of Management and Budget (OMB). For New England, the New England County Metropolitan Areas (NECMA) are used for defining codes. Large metropolitan areas have a population of 1 million or more. Small metropolitan areas have a population of fewer than 1 million. Nonmetropolitan areas are areas outside MSAs. Small metropolitan areas are further classified as having either fewer than or greater than 250,000 population. Counties in nonmetropolitan areas are classified based on the number of people in the county who live in an urbanized area, as defined by the Census Bureau at the subcounty level. "Urbanized" counties have 20,000 or more population in urbanized areas, "Less Urbanized" counties have at least 2,500 but fewer than 20,000 population in urbanized areas, and "Completely Rural" counties have fewer than 2,500 population in urbanized areas.

1.4. Other NSDUH Reports

This report provides a comprehensive summary of the 2002 NSDUH, including results, technical appendices, and selected data tables. A companion report, *Overview of Findings from the 2002 National Survey on Drug Use and Health,* is a shorter, more concise report that highlights the most important findings of the survey and includes only a brief discussion of the methods. A report on State-level estimates for 2002 will be available in early 2004.

In addition to the tables included in Appendices G and H of this report, a more extensive set of tables, including standard errors, is available upon request from OAS or through the Internet at http://www.DrugAbuseStatistics.SAMHSA.gov. Additional methodological information on NSDUH, including the questionnaire, is available electronically at the same web address. Brief descriptive reports and in-depth analytic reports focusing on specific issues or population groups also are produced by OAS. A complete listing of previously published reports from NSDUH and other data sources is available from OAS. Most of these reports also are available through the Internet (http://www.DrugAbuseStatistics.SAMHSA.gov). In addition, OAS makes public use data files available to researchers through the Substance Abuse and Mental Health Data Archive (SAMHDA, 2003). Currently, files are available from the 1979 to 2001 NHSDAs at http://www.icpsr.umich.edu/SAMHDA. The NSDUH 2002 public use file will be available by the end of 2003.

2. Illicit Drug Use

The National Survey on Drug Use and Health (NSDUH) obtains information on nine different categories of illicit drug use: marijuana, cocaine, heroin, hallucinogens, inhalants, and nonmedical use of prescription-type pain relievers, tranquilizers, stimulants, and sedatives. In these categories, hashish is included with marijuana, and crack is considered a form of cocaine. Several drugs are grouped under the hallucinogens category, including LSD, PCP, peyote, mescaline, mushrooms, and "Ecstasy" (MDMA). Inhalants include a variety of substances, such as amyl nitrite, cleaning fluids, gasoline, paint, and glue. The four categories of prescription-type drugs (pain relievers, tranquilizers, stimulants, and sedatives) cover numerous drugs available through prescriptions and sometimes illegally "on the street." Methamphetamine is included under stimulants. Over-the-counter drugs and legitimate uses of prescription drugs are not included. Respondents are asked to report only uses of drugs that were not prescribed for them or drugs they took only for the experience or feeling they caused. NSDUH reports combine the four prescription-type drug groups into a category referred to as "any psychotherapeutics."

Estimates of "any illicit drug use" reported from NSDUH reflect use of any of the nine substance categories listed above. Use of alcohol and tobacco products, while illegal for youths, are not included in these estimates, but are discussed in Chapters 3 and 4. Findings from the 2002 NSDUH on illicit drug use are summarized below.

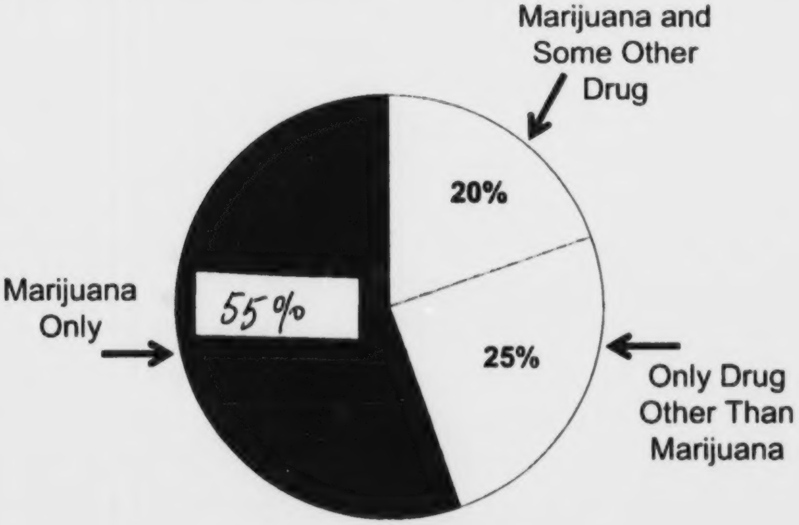
- In 2002, an estimated 19.5 million Americans aged 12 or older were current illicit drug users, meaning they had used an illicit drug during the month prior to the survey interview. This estimate represents 8.3 percent of the population aged 12 years old or older.

- Marijuana is the most commonly used illicit drug. In 2002, it was used by 75 percent of current illicit drug users. Approximately 55 percent of current illicit drug users used only marijuana, 20 percent used marijuana and another illicit drug, and the remaining 25 percent used an illicit drug but not marijuana in the past month. About 45 percent of current illicit drug users in 2002 (8.8 million Americans) used illicit drugs other than marijuana and hashish, with or without using marijuana as well (Figure 2.1).

- In 2002, an estimated 2.0 million persons (0.9 percent) were current cocaine users, 567,000 of whom used crack during the same time period (0.2 percent). Hallucinogens were used by 1.2 million persons (0.5 percent), including 676,000 users of Ecstasy (0.3 percent) (Figure 2.2). There were an estimated 166,000 current heroin users (0.1 percent).

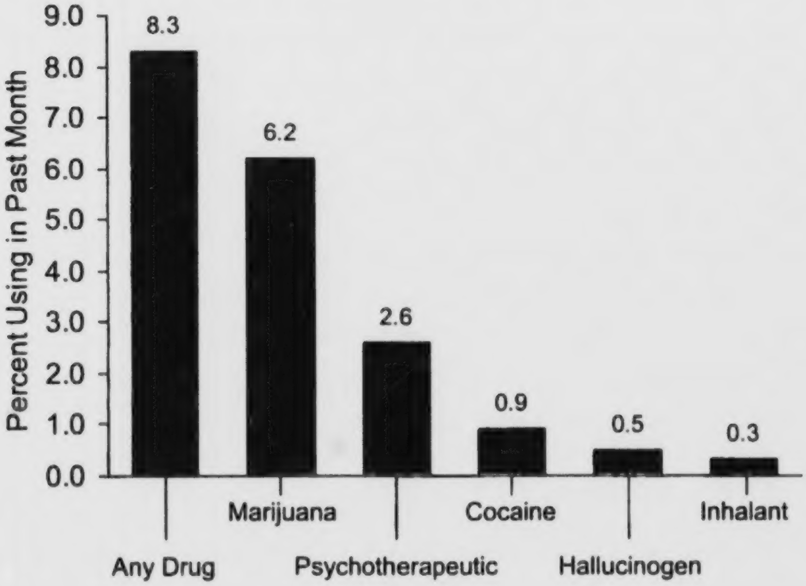
- Of the 8.8 million current users of illicit drugs other than marijuana, 6.2 million were current users of psychotherapeutic drugs. This represents 2.6 percent of the population aged 12 or older. Of those who reported current use of any psychotherapeutics, 4.4 million used pain relievers, 1.8 million used tranquilizers, 1.2 million used stimulants, and 0.4 million used sedatives.

Figure 2.1 Types of Drugs Used by Past Month Illicit Drug Users Aged 12 or Older: 2002



19.5 Million Illicit Drug Users

Figure 2.2 Past Month Use of Selected Illicit Drugs among Persons Aged 12 or Older: 2002



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- In 2002, approximately 1.9 million persons aged 12 or older had used OxyContin nonmedically at least once in their lifetime. OxyContin is a controlled-release tablet form of the narcotic oxycodone that can have severe health consequences if the tablet is crushed and then ingested.

Age

- Rates of drug use showed substantial variation by age. For example, 4.2 percent of youths aged 12 or 13 reported current illicit drug use in 2002 (Figure 2.3). As in other years, illicit drug use in 2002 tended to increase with age among young persons. It peaked among 18 to 20 year olds (22.5 percent) and declined steadily after that point with increasing age.

- The types of drugs used also varied by age group. Among youths aged 12 to 17, 11.6 percent were current illicit drug users: 8.2 percent used marijuana, 4.0 percent used prescription-type drugs, 1.2 percent used inhalants, 1.0 percent used hallucinogens, and 0.6 percent used cocaine (Figure 2.4). Rates of use were highest for the young adult age group (18 to 25 years) at 20.2 percent, with 17.3 percent using marijuana, 5.4 percent using prescription-type drugs nonmedically, 2.0 percent using cocaine, and 1.9 percent using hallucinogens (Figure 2.5). Among adults aged 26 or older, 5.8 percent reported current illicit drug use: 4.0 percent used marijuana and 2.0 percent used prescription-type drugs. Less than 1 percent used cocaine (0.7 percent), hallucinogens (0.2 percent), and inhalants (0.1 percent) (Figure 2.6).

- Among youths, the types of drugs used also differed by age. Among 12 or 13 year olds, 1.7 percent used prescription-type drugs nonmedically, 1.4 percent used marijuana, and 1.4 percent used inhalants. Among 14 or 15 year olds, marijuana was the dominant drug used (7.6 percent), followed by prescription-type drugs used nonmedically (4.0 percent) and inhalants (1.6 percent). Marijuana also was the most commonly used drug among 16 or 17 year olds (15.7 percent), followed by prescription-type drugs used nonmedically (6.2 percent), hallucinogens (1.9 percent), and cocaine (1.3 percent). Only 0.6 percent of youths aged 16 or 17 used inhalants.

- Although most drug use rates in 2002 were higher among youths and young adults compared with older adults, the age distribution of users varied considerably by type of drug. Almost half (47 percent) of current illicit drug users were aged 12 to 25. However, in 2002, 71 percent of hallucinogen users, as well as 71 percent of inhalant users, were 12 to 25 year olds. Conversely, only 38 percent of cocaine users and 43 percent of nonmedical psychotherapeutics users were in that age grouping.

Gender

- As in prior years, men were more likely in 2002 to report current illicit drug use than women (10.3 vs. 6.4 percent). However, rates of nonmedical psychotherapeutic use were similar for males (2.7 percent) and females (2.6 percent), which was consistent with previous findings for these drugs.

Figure 2.3 Past Month Illicit Drug Use, by Age: 2002

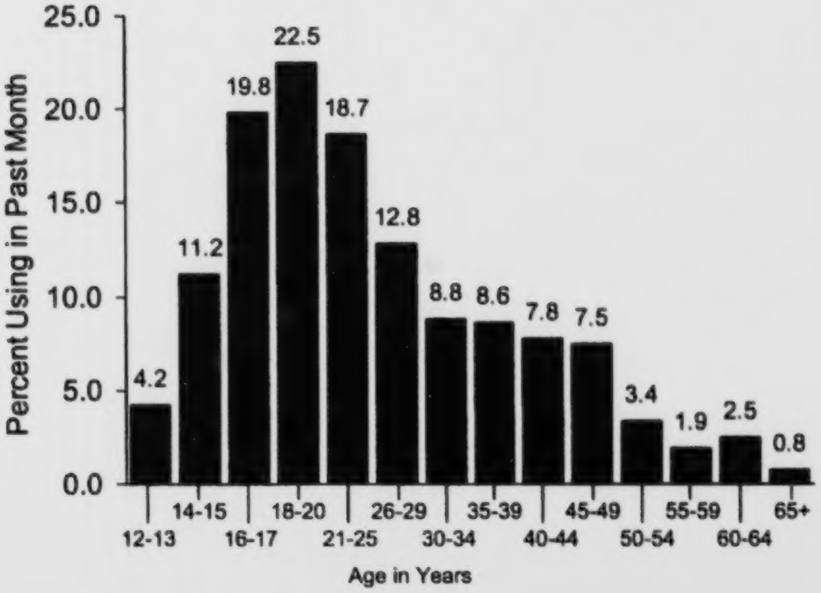


Figure 2.4 Past Month Use of Selected Illicit Drugs among Youths Aged 12 to 17: 2002

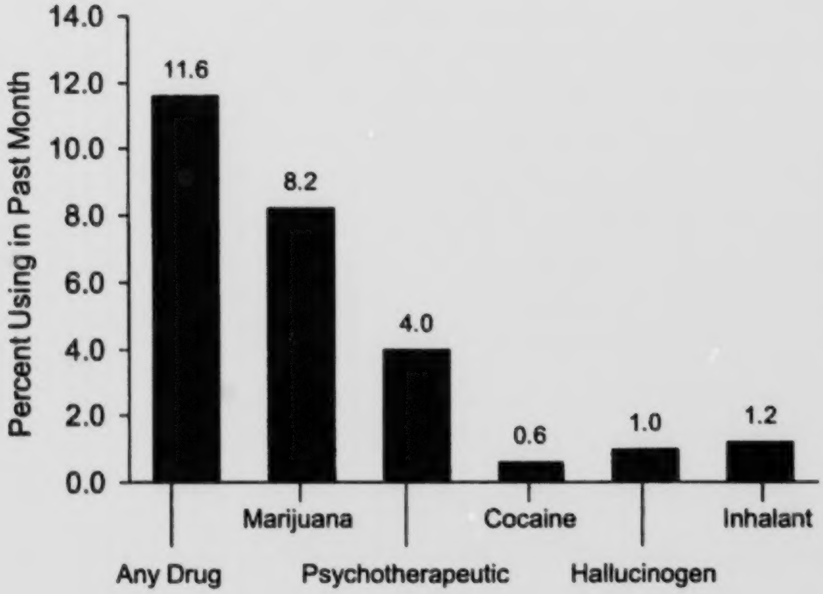


Figure 2.5 Past Month Use of Selected Illicit Drugs among Young Adults Aged 18 to 25: 2002

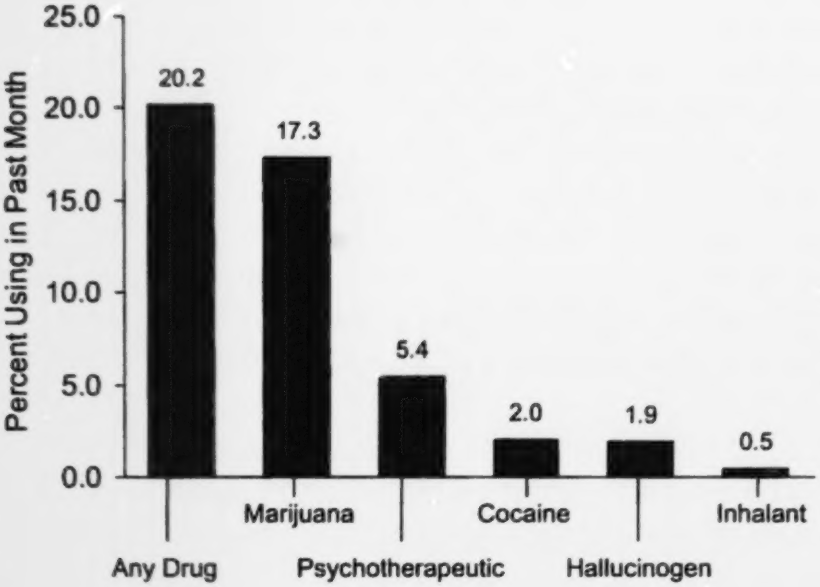
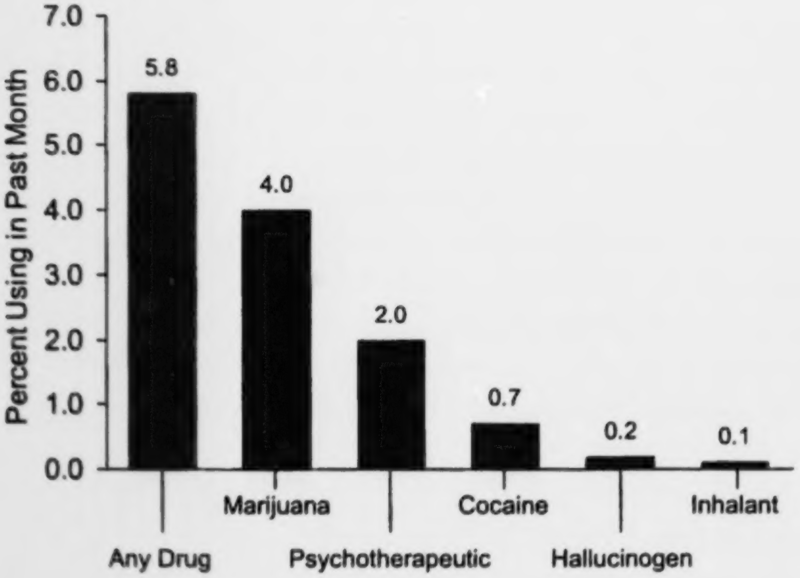


Figure 2.6 Past Month Use of Selected Illicit Drugs among Adults Aged 26 or Older: 2002



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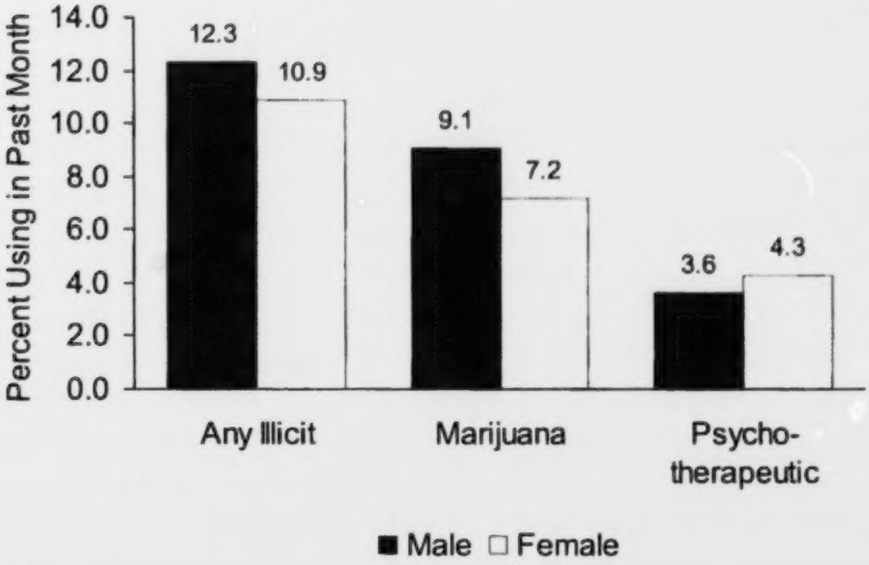
- Among youths aged 12 to 17, the rate of current illicit drug use was higher for boys (12.3 percent) than for girls (10.9 percent) (Figure 2.7). Although boys aged 12 to 17 had a higher rate of marijuana use than girls (9.1 vs. 7.2 percent), girls were more likely to use psychotherapeutics nonmedically than boys (4.3 vs. 3.6 percent).

Figure 2.7 Past Month Illicit Drug Use among Youths Aged 12 to 17, by Gender: 2002



Pregnant Women

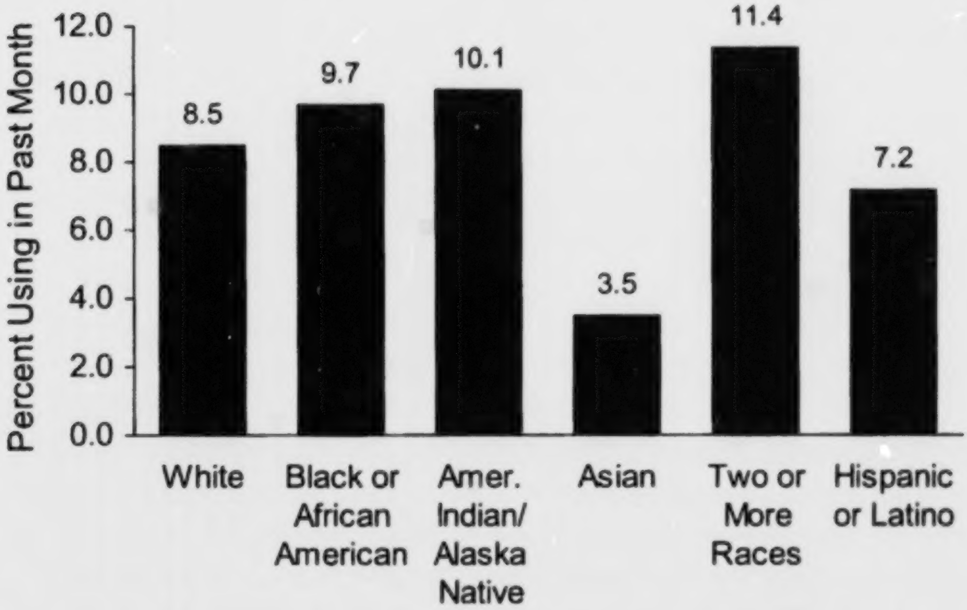
- Among pregnant women aged 15 to 44 years, 3.3 percent reported using illicit drugs in the month prior to their interview. This rate was significantly lower than the rate among women aged 15 to 44 who were not pregnant (10.3 percent).

Race/Ethnicity

- Rates of current illicit drug use varied significantly among the major racial/ethnic groups in 2002. The rate was highest among American Indians/Alaska Natives (10.1 percent) and persons reporting two or more races (11.4 percent). Rates were 8.5 percent for whites, 7.2 percent for Hispanics, and 9.7 percent for blacks (Figure 2.8). Asians had the lowest rate at 3.5 percent.

- There were variations in rates of past month illicit drug use among Hispanic subgroups. Rates were 10.0 percent for Puerto Ricans, 7.3 percent for Mexicans, 6.5 percent for Cubans, and 5.0 percent for Central or South Americans.

Figure 2.8 Past Month Illicit Drug Use among Persons Aged 12 or Older, by Race/Ethnicity: 2002

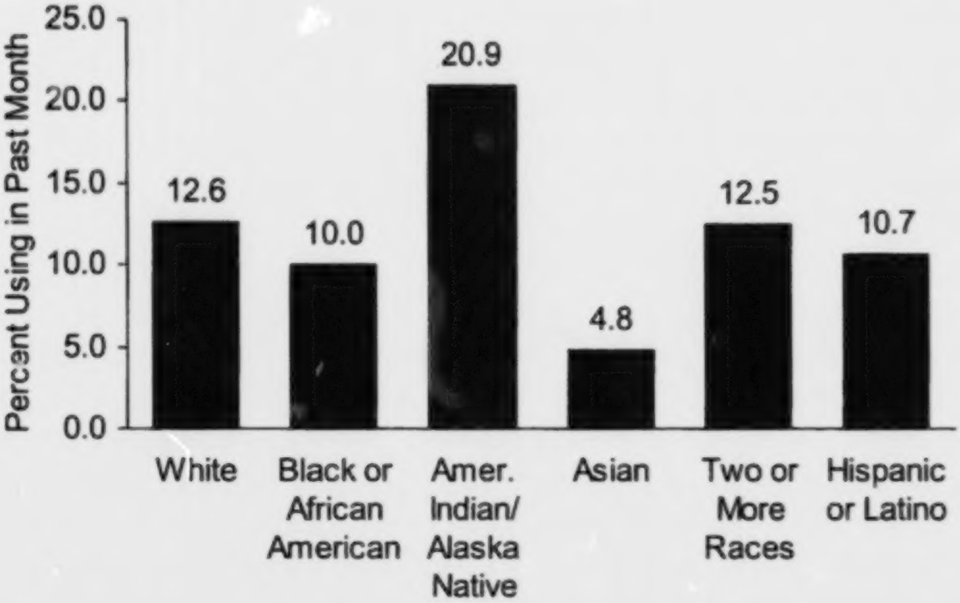


- Among youths aged 12 to 17, the rate of current illicit drug use among American Indians/Alaska Natives (20.9 percent) was significantly higher than the rate among all youths (11.6 percent), and the rate among Asian youths (4.8 percent) was significantly lower compared with the overall rate for all youths (Figure 2.9).

Education

- As in other years, illicit drug use rates were correlated with educational status in 2002. Among adults aged 18 or older, the rate of current illicit drug use was lower among college graduates (5.8 percent) compared with those who did not graduate from high school (9.1 percent), high school graduates (8.0 percent), or those with some college (9.1 percent). This is despite the fact that adults who had completed 4 years of college were more likely to have tried illicit drugs in their lifetime when compared with adults who had not completed high school (50.5 vs. 37.1 percent).

Figure 2.9 Past Month Illicit Drug Use among Youths Aged 12 to 17, by Race/Ethnicity: 2002



College Students

- In the college-aged population (i.e., those aged 18 to 22 years old), the rate of current illicit drug use was nearly the same among full-time undergraduate college students (20.7 percent) as for other persons aged 18 to 22 years, including part-time students, students in other grades, and nonstudents (22.4 percent).

Employment

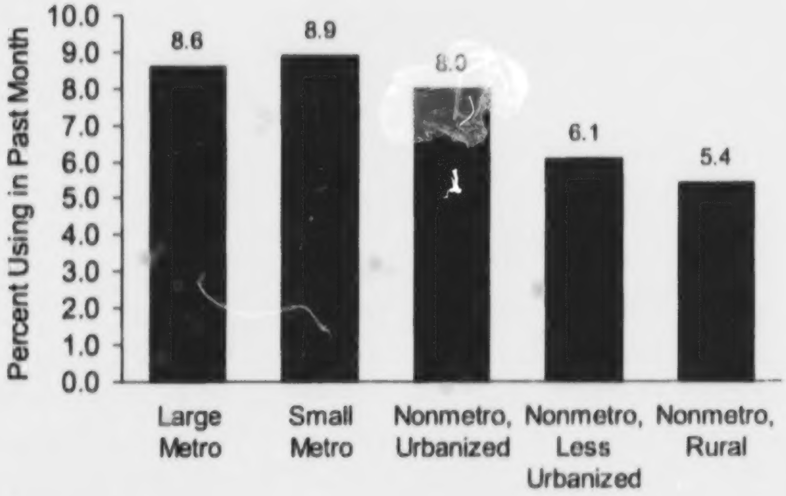
- Current employment status was highly correlated with rates of illicit drug use in 2002. An estimated 17.4 percent of unemployed adults aged 18 or older were current illicit drug users compared with 8.2 percent of those employed full time and 10.5 percent of those employed part time.
- Although the rate of drug use was higher among unemployed persons compared with those from other employment groups, most drug users were employed. Of the 16.6 million illicit drug users aged 18 or older in 2002, 12.4 million (74.6 percent) were employed either full or part time.

Geographic Area

- Among persons aged 12 or older, the rate of current illicit drug use in 2002 was 9.7 percent in the West, 8.2 percent in the Northeast, 8.1 percent in the Midwest, and 7.6 percent in the South.

- The rate of illicit drug use in metropolitan areas was higher than the rate in nonmetropolitan areas. Rates were 8.6 percent in large metropolitan counties, 8.9 percent in small metropolitan counties, and 6.6 percent in nonmetropolitan counties as a group (Figure 2.10). Within nonmetropolitan areas, counties that were urbanized had a rate of 8.0 percent, while completely rural counties had a rate of 5.4 percent. This is not a statistically significant difference, but this finding is consistent with the pattern reported in previous surveys.

Figure 2.10 Past Month Illicit Drug Use among Persons Aged 12 or Older, by County Type: 2002



Criminal Justice Populations

- In 2002, among the estimated 1.8 million adults aged 18 or older on parole or other supervised release from prison during the past year, 29.1 percent were current illicit drug users compared with 7.7 percent among adults not on parole or supervised release.

- Among the estimated 4.8 million adults on probation at some time in the past year, 28.7 percent reported current illicit drug use in 2002. This compares with a rate of 7.4 percent among adults not on probation in 2002.

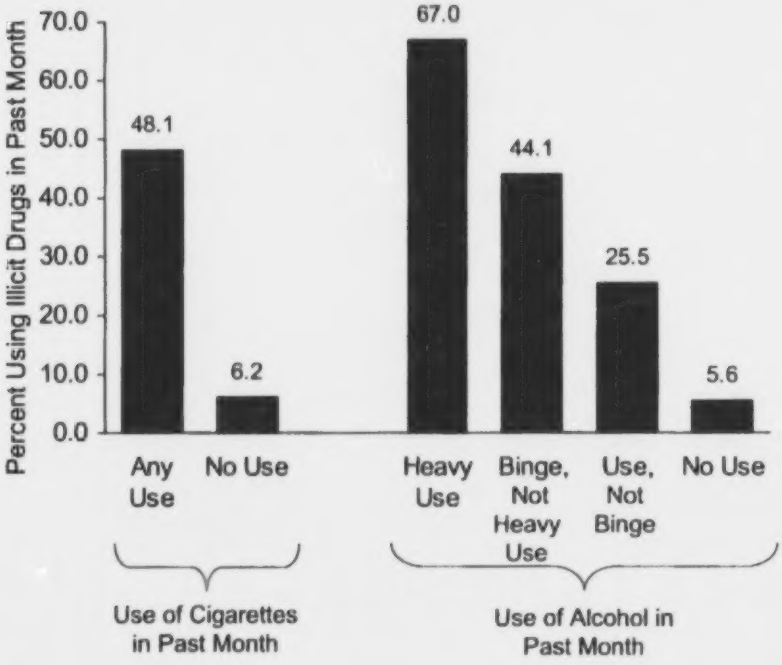
Frequency of Use

- In 2002, 12.2 percent of past year marijuana users used marijuana on 300 or more days in the past 12 months. This translates into 3.1 million persons using marijuana on a daily or almost daily basis over a 12-month period. Among past month users, about one third (32.6 percent, or 4.8 million persons) used marijuana on 20 or more days in the past month.

Association with Cigarette and Alcohol Use

- In 2002, the rate of current illicit drug use was approximately 8 times higher among youths who smoked cigarettes (48.1 percent) than it was among youths who did not smoke cigarettes (6.2 percent) (Figure 2.11).

Figure 2.11 Past Month Illicit Drug Use among Youths Aged 12 to 17, by Cigarette and Alcohol Use: 2002



- Illicit drug use also was associated with the level of alcohol use. Among youths who were heavy drinkers, 67.0 percent also were current illicit drug users, whereas among nondrinkers, the rate was only 5.6 percent.

Driving Under the Influence of Illicit Drugs

- In 2002, an estimated 11.0 million persons reported driving under the influence of an illicit drug during the past year. This corresponds to 4.7 percent of the population aged 12 or older. The rate was 10 percent or greater for each age from 17 to 25, with 18 year olds reporting the highest rate of any age (18.0 percent). Among adults aged 26 or older, the rate was 3.0 percent.

How Marijuana Is Obtained

- NSDUH includes questions asking marijuana users how, from whom, and where they obtained the marijuana they used most recently. In 2002, most users (56.7 percent) got the drug for free or shared someone else's marijuana. Almost 40 percent of marijuana users bought it.

- Most marijuana users obtained the drug from a friend; 79.0 percent who bought their marijuana and 81.8 percent who obtained the drug for free had obtained it from a friend.

- More than half (55.9 percent) of users who bought their marijuana purchased it inside a home, apartment, or dorm. This also was the most common location for obtaining marijuana for free (67.2 percent). The percentages of youth users who obtained marijuana inside a home, apartment, or dorm were 34.7 percent for buyers and 48.0 percent for those who obtained it free.

- Almost 9 percent of youths who bought their marijuana obtained it inside a school building, and 4.8 percent bought it outside on school property.

3. Alcohol Use

The National Survey on Drug Use and Health (NSDUH) includes a set of questions asking about the recency and frequency of the consumption of alcoholic beverages, such as beer, wine, whiskey, brandy, and mixed drinks. An extensive list of examples of the kinds of beverages covered is given to respondents prior to the question administration. A "drink" is defined as a can or bottle of beer, a glass of wine or a wine cooler, a shot of liquor, or a mixed drink with liquor in it. Times when the respondent only had a sip or two from a drink are not considered as consumption. For this report, estimates for the prevalence of alcohol use are reported primarily at three levels defined for both males and females and for all ages as follows:

Current use - At least one drink in the past 30 days (includes binge and heavy use).

Binge use - Five or more drinks on the same occasion at least once in the past 30 days (includes heavy use).

Heavy use - Five or more drinks on the same occasion on at least 5 different days in the past 30 days.

A summary of the findings from the 2002 NSDUH alcohol questions is given below:

- About half of Americans aged 12 or older reported being current drinkers of alcohol in the 2002 survey (51.0 percent). This translates to an estimated 120 million people.
- More than one fifth (22.9 percent) of persons aged 12 or older participated in binge drinking at least once in the 30 days prior to the survey. This translates to about 54 million people.
- Heavy drinking was reported by 6.7 percent of the population aged 12 or older, or 15.9 million people.

Age

- The prevalence of current alcohol use increased with increasing age in 2002, from 2.0 percent at age 12 to 6.5 percent at age 13, 13.4 percent at age 14, 19.9 percent at age 15, 29.0 percent at age 16, and 36.2 percent at age 17. The rate reached a peak of 70.9 percent for persons 21 years old.
- Rates of binge alcohol use were 0.8 percent at age 12, 2.8 percent at age 13, 7.0 percent at age 14, 11.6 percent at age 15, 17.9 percent at age 16, and 25.0 percent at age 17. The rate peaked at age 21 (50.2 percent).

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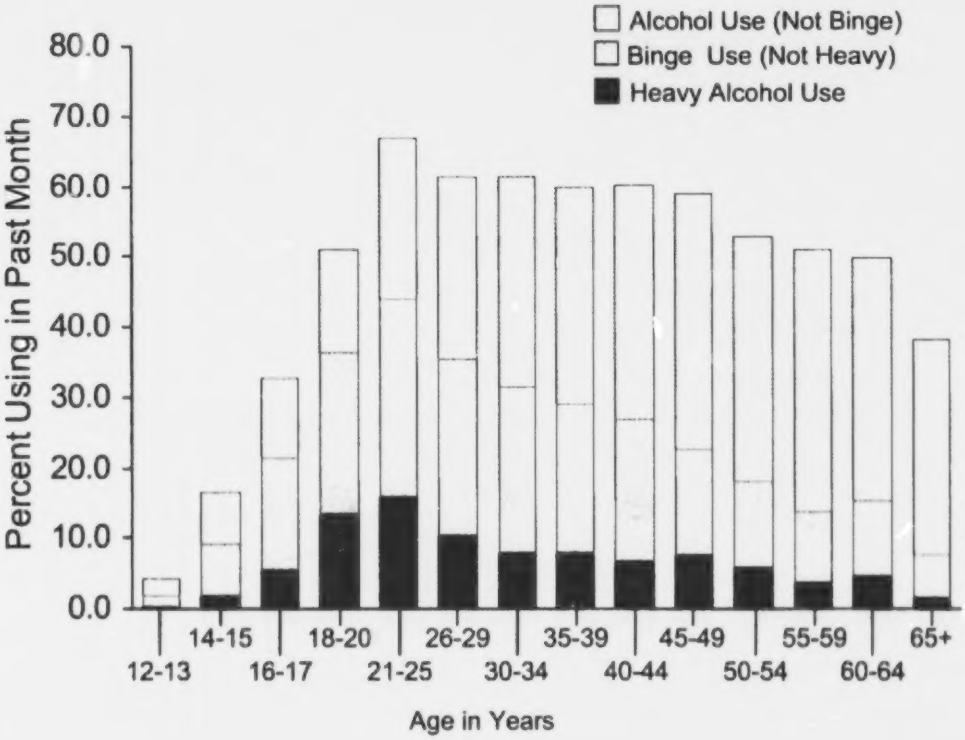
- The highest prevalence of both binge and heavy drinking in 2002 was for young adults aged 18 to 25, with the peak rate of both measures occurring at age 21 (Figure 3.1). The rate of binge drinking was 40.9 percent for young adults and 50.2 percent at age 21. Heavy alcohol use was reported by 14.9 percent of persons aged 18 to 25 and by 20.1 percent of persons aged 21. Binge and heavy alcohol use rates decreased faster with increasing age than did rates of past month alcohol use. While 58.8 percent of the population aged 45 to 49 in 2002 were current drinkers, 22.5 percent of persons within this age range were binge drinkers and 7.7 percent drank heavily. Binge and heavy drinking were relatively rare among people aged 65 or older, with reported rates of 7.5 and 1.4 percent, respectively.

Figure 3.1 Past Month Alcohol Use, by Age: 2002



- Among youths aged 12 to 17, an estimated 17.6 percent used alcohol in the month prior to the survey interview. Of all youths, 10.7 percent were binge drinkers, and 2.5 percent were heavy drinkers.

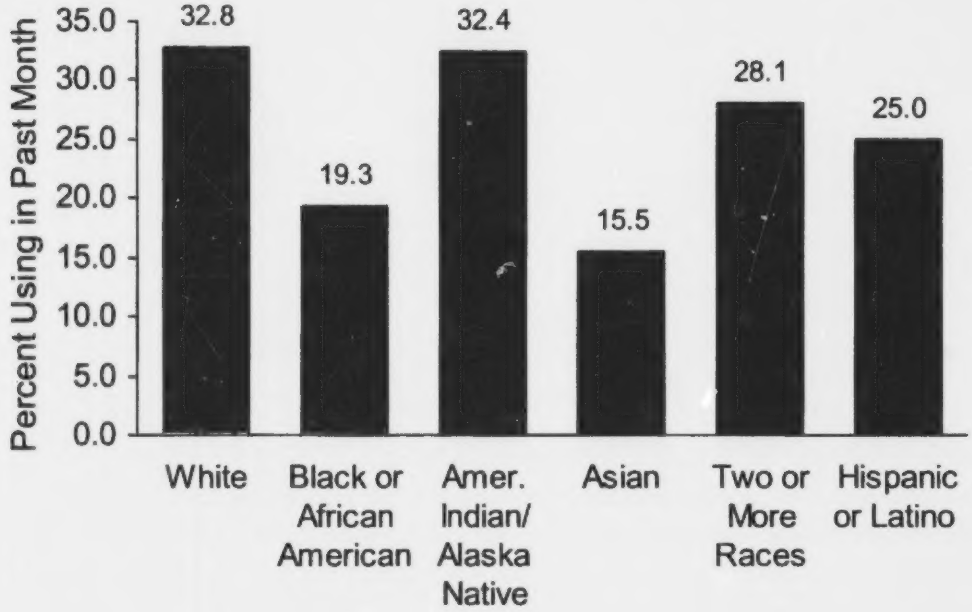
Underage Alcohol Use

- About 10.7 million persons aged 12 to 20 reported drinking alcohol in the month prior to the survey interview in 2002 (28.8 percent of this age group). Of these, nearly 7.2 million (19.3 percent) were binge drinkers, and 2.3 million (6.2 percent) were heavy drinkers.

- More males than females aged 12 to 20 reported binge drinking in 2002 (21.8 vs. 16.7 percent).

- Among persons aged 12 to 20, past month alcohol use rates in 2002 ranged from 15.5 percent for Asians and 19.3 percent among blacks to 32.8 percent for whites (Figure 3.2). Binge drinking was reported by 22.7 percent of underage whites, 22.6 percent of underage American Indians or Alaska Natives, and 16.8 percent of underage Hispanics, but only by 8.6 percent of underage Asians and 9.8 percent of underage blacks.

Figure 3.2 Past Month Alcohol Use among Persons Aged 12 to 20, by Race/Ethnicity: 2002



- Across geographic divisions in 2002, underage current alcohol use rates ranged from 24.2 percent in the Pacific division and 26.4 percent in the East South Central division to 33.9 percent in New England.

- In 2002, underage current alcohol use rates were similar by population density. Rates were 27.2 percent in large metropolitan areas, 30.7 percent in small metropolitan areas, and 29.6 percent in nonmetropolitan areas. The rate in nonmetropolitan rural areas was 26.0 percent.

Gender

- Except among youths aged 12 to 17, males were more likely than females to report past month alcohol drinking. In 2002, 57.4 percent of males aged 12 or older were current drinkers compared with 44.9 percent of females.

- For the youngest age group (12 to 17), males and females had comparable rates of current alcohol use in 2002 (17.4 percent of males and 17.9 percent of females).

Pregnant Women

- Among pregnant women aged 15 to 44 in 2002, 9.1 percent used alcohol and 3.1 percent reported binge drinking in the month prior to the survey. These rates were significantly lower than the rates for nonpregnant women of that age (53.4 and 23.4 percent, respectively). Heavy alcohol use was relatively rare (0.7 percent) among pregnant women.

Race/Ethnicity

- Whites were more likely than any other racial/ethnic group to report current use of alcohol in 2002. An estimated 55.0 percent of whites reported past month use. The next highest rate was for persons reporting two or more races (49.9 percent). The lowest current drinking rate was observed for Asians (37.1 percent). The rates were 39.9 percent for blacks, 44.7 percent for American Indians/Alaska Natives, and 42.8 percent for Hispanics.

- The rate of binge alcohol use was lowest among Asians (12.4 percent). Rates for other racial/ethnic groups were 21.0 percent for blacks, 23.4 percent for whites, 24.8 percent for Hispanics, 25.2 percent for Native Hawaiians and other Pacific Islanders, and 27.9 percent for American Indians/Alaska Natives.

- Among youths aged 12 to 17 in 2002, blacks and Asians were least likely to report past month alcohol use. Only 7.4 percent of Asian youths and 10.9 percent of black youths were current drinkers, while rates were above 15 percent for other racial/ethnic groups.

Education

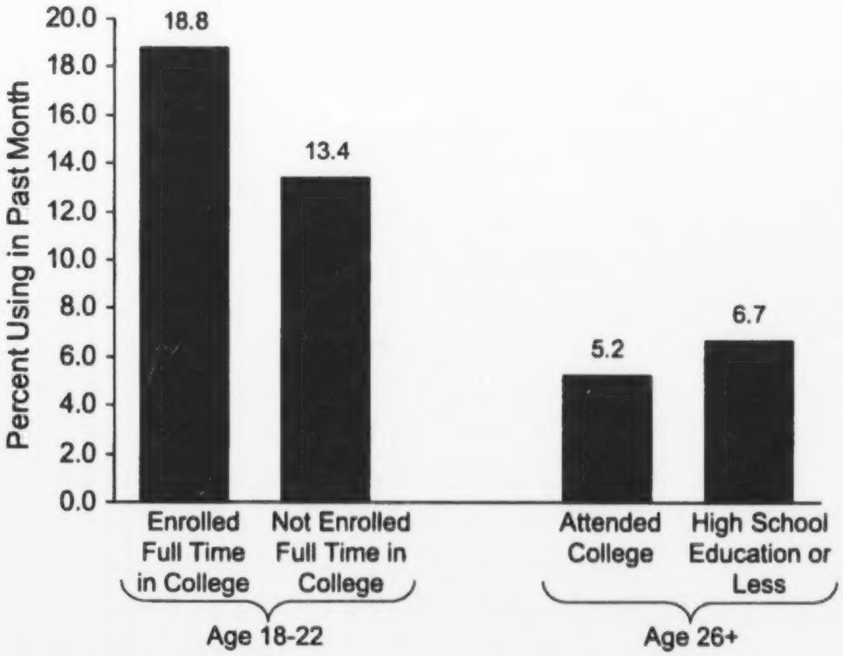
- The rate of past month alcohol use increased with increasing levels of education. Among adults aged 18 or older with less than a high school education, 37.8 percent were current drinkers in 2002, while 67.4 percent of college graduates were current drinkers. However, binge drinking and heavy drinking were least prevalent among college graduates.

College Students

- Young adults aged 18 to 22 enrolled full time in college were more likely than their peers not enrolled full time (this category includes part-time college students and persons not enrolled in college) to use alcohol, binge drink, and drink heavily in 2002. Past month alcohol use was reported by 64.1 percent of full-time college students compared with 54.3 percent of persons 18 to 22 who were not currently enrolled full time. Binge and heavy use rates for college students were 44.4 and 18.8 percent, respectively, compared with 38.9 and 13.4 percent, respectively, for other persons aged 18 to 22.

- Among persons aged 18 to 22, full-time college students were more likely to be heavy drinkers than others (18.8 and 13.4 percent, respectively). However, at later ages (26 or older), those who had attended college were less likely to drink heavily than those who had not attended college (5.2 and 6.7 percent, respectively) (Figure 3.3).

Figure 3.3 Heavy Alcohol Use, by College Attendance and Age: 2002



Employment

- Rates of current alcohol use were 61.8 percent for full-time employed adults aged 18 or older in 2002 compared with 57.9 percent of their unemployed peers. However, the patterns were different for binge and heavy alcohol use; rates were higher for unemployed persons (34.7 and 13.3 percent, respectively, for binge and heavy use) than for full-time employed persons (29.0 and 8.4 percent, respectively).

- Most binge and heavy alcohol users were employed. Among the 51.1 million adult binge drinkers in 2002, 40.8 million (80 percent) were employed either full or part time. Similarly, 12 million (79 percent) of the 15.2 million adult heavy drinkers were employed.

Geographic Area

- The rate of past month alcohol use for people aged 12 or older in 2002 was lowest in the East South Central division (36.7 percent) and highest in New England (57.2 percent).

- Among people aged 12 or older, the rate of alcohol use in 2002 in large metropolitan areas was 54.0 percent compared with 51.3 percent in small metropolitan areas and 42.9 percent in nonmetropolitan areas. There was less variation across county types in rates of binge and heavy drinking. The rate of heavy alcohol use was 6.3 percent in large metropolitan areas, 7.9 percent in small metropolitan areas, and 6.1 percent in nonmetropolitan areas.

- Among youths aged 12 to 17, the rate of past month binge alcohol use was slightly higher in nonmetropolitan areas (12.6 percent) than in large or small metropolitan areas (10.1 and 10.3 percent, respectively). In rural nonmetropolitan areas, 14.2 percent of youths reported binge drinking.

Association with Illicit Drug and Tobacco Use

- The level of alcohol use was strongly associated with illicit drug use in 2002. Among the 15.9 million heavy drinkers aged 12 or older, 32.6 percent were current illicit drug users. For binge drinkers who were not heavy drinkers, 16.6 percent reported past month illicit drug use. Other drinkers (i.e., past month alcohol use but not binge drinking) had a rate of 5.8 percent for current illicit drug use, and persons who did not use alcohol in the past month were least likely to use illicit drugs (3.6 percent).

- Drinking levels also were associated with tobacco use. Among heavy alcohol users, 61.3 percent smoked cigarettes in the past month, while only 21.8 percent of non-binge current drinkers and 17.7 percent of nondrinkers were current smokers. Smokeless tobacco and cigar use also were more prevalent among heavy drinkers than among non-binge drinkers and nondrinkers.

Driving Under the Influence of Alcohol

- About 1 in 7 Americans aged 12 or older in 2002 (14.2 percent, or 33.5 million persons) drove under the influence of alcohol at least once in the 12 months prior to the interview.

- Males were nearly twice as likely as females (18.8 vs. 9.9 percent, respectively) to have driven under the influence of alcohol.

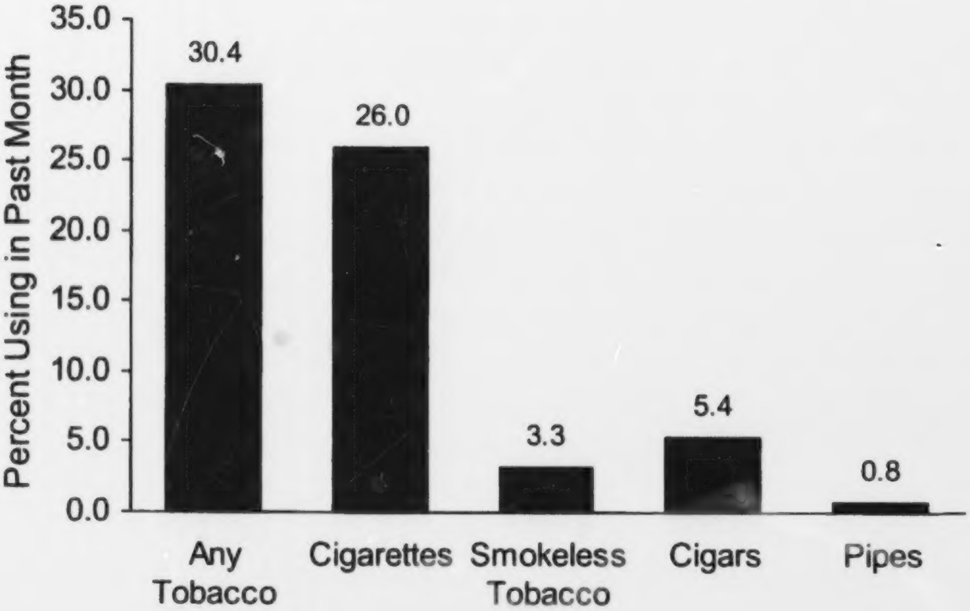
- More than 1 in 4 (26.6 percent) young adults aged 18 to 25 reported driving under the influence of alcohol at least once in the prior year.

4. Tobacco Use

The National Survey on Drug Use and Health (NSDUH) includes a series of questions asking about the use of several tobacco products, including cigarettes, chewing tobacco, snuff, cigars, and pipe tobacco. For analysis purposes, data for chewing tobacco and snuff are combined and referred to as "smokeless tobacco." Cigarette use is defined as smoking "part or all of a cigarette." Findings from the 2002 NSDUH are summarized below.

- An estimated 71.5 million Americans reported current use (past month use) of a tobacco product in 2002, a prevalence rate of 30.4 percent for the population aged 12 or older.
- Among that same population, 61.1 million (26.0 percent of the total population aged 12 or older) smoked cigarettes, 12.8 million (5.4 percent) smoked cigars, 7.8 million (3.3 percent) used smokeless tobacco, and 1.8 million (0.8 percent) smoked tobacco in pipes (Figure 4.1).

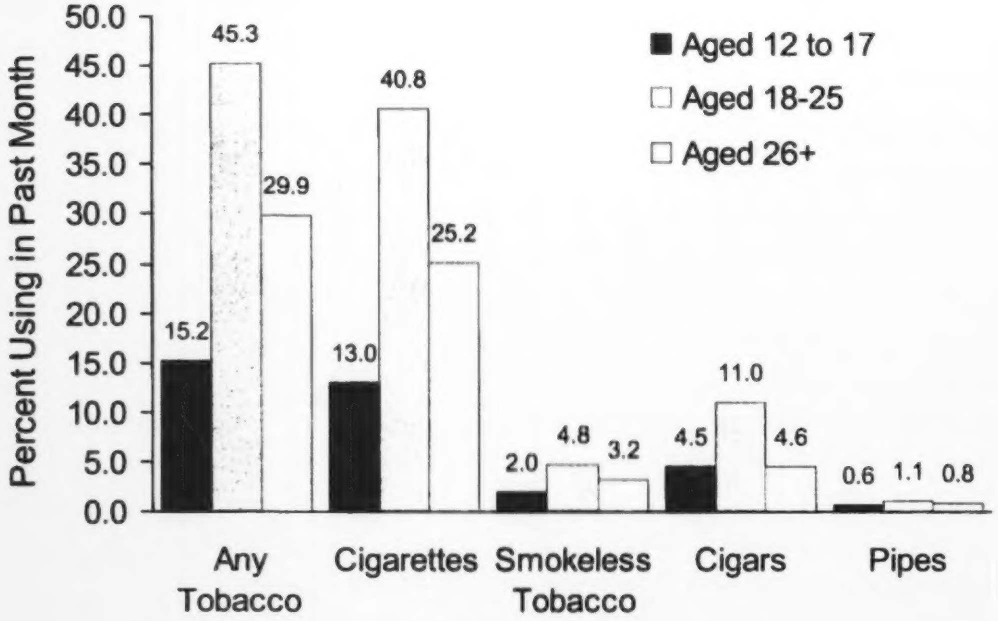
Figure 4.1 Past Month Tobacco Use among Persons Aged 12 or Older: 2002



Age

- Young adults aged 18 to 25 continued to report the highest rate (45.3 percent) of use of tobacco products. Past month rates of use for this age group were 40.8 percent for cigarettes, 11.0 percent for cigars, 4.8 percent for smokeless tobacco, and 1.1 percent for pipes (Figure 4.2).

Figure 4.2 Past Month Tobacco Use among Persons Aged 12 or Older, by Age Group: 2002



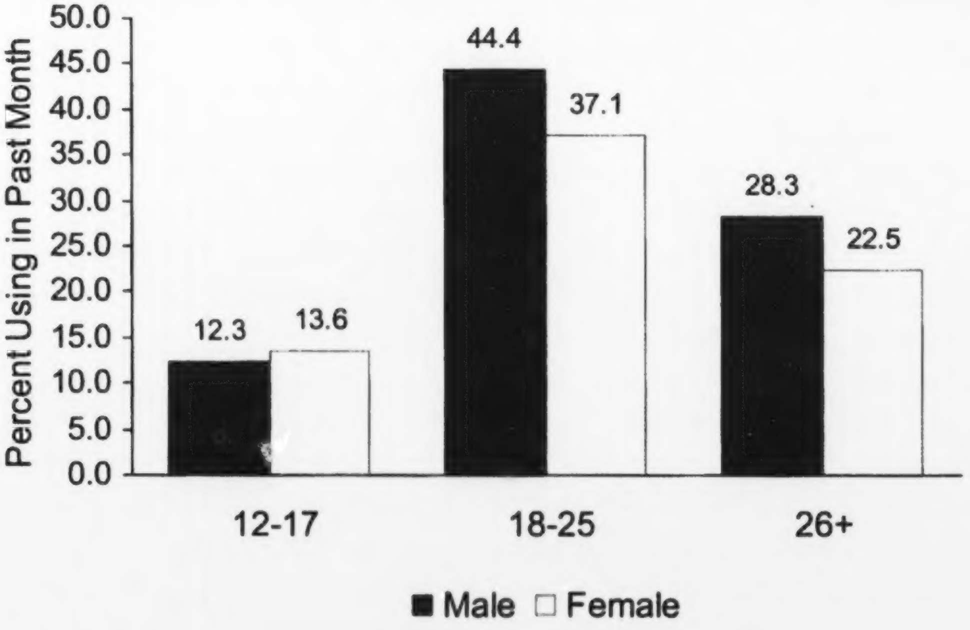
- Current cigarette smoking rates increased steadily by year of age up to age 21, from 1.7 percent at age 12 to 4.7 percent at age 13, 8.5 percent at age 14, 14.1 percent at age 15, 21.9 percent at age 16, and 28.1 percent at age 17. The rate peaked at 46.2 percent at age 21. After age 21, rates generally declined, reaching 19.9 percent for persons aged 60 to 64 years and 10.3 percent for persons aged 65 or older. By age group, the prevalence of cigarette use was 13.0 percent among 12 to 17 year olds, 40.8 percent among young adults aged 18 to 25 years, and 25.2 percent among adults aged 26 or older.

Gender

- As was found in prior surveys, males were more likely than females to report past month use of any tobacco product. In 2002, 37.0 percent of males aged 12 or older were current users of any tobacco product, a significantly higher proportion than among females (24.3 percent).

- A higher proportion of males than females aged 12 or older smoked cigarettes in 2002 (28.7 vs. 23.4 percent). However, among youths aged 12 to 17, girls were slightly more likely than boys to smoke (13.6 vs. 12.3 percent) (Figure 4.3).

Figure 4.3 Past Month Cigarette Use, by Age and Gender: 2002



- Males were much more likely than their female counterparts to report current use of smokeless tobacco (6.4 percent of males aged 12 or older vs. 0.4 percent of females).

- As seen for smokeless tobacco, males were more likely than females to report past month cigar use. Specifically, males aged 12 or older were more than 5 times as likely as females to report past month use of cigars (9.4 vs. 1.7 percent).

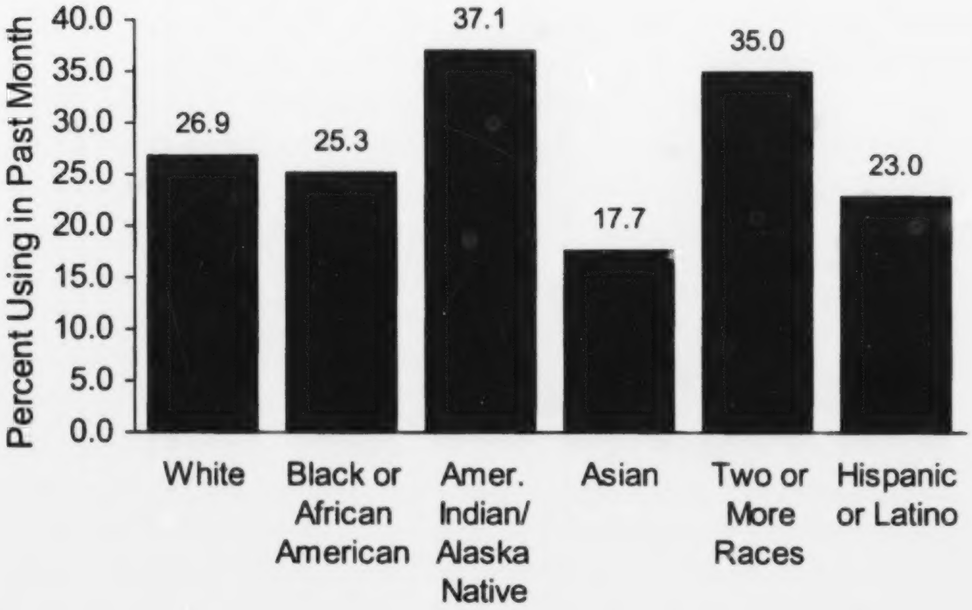
Pregnant Women

- In 2002, 17.3 percent of pregnant women aged 15 to 44 smoked cigarettes in the past month compared with 31.1 percent of nonpregnant women of the same age group.

Race/Ethnicity

- American Indians and Alaska Natives were more likely than any other racial/ethnic group to report the use of tobacco products in 2002. Among persons aged 12 or older, 44.3 percent of American Indians/Alaska Natives reported using at least one tobacco product in the past month. The lowest current tobacco use rate in 2002 was observed for Asians (18.6 percent).
- Current cigarette smoking rates among persons aged 12 or older were 37.1 percent among American Indians/Alaska Natives, 35.0 percent among persons reporting two or more races, 26.9 percent among whites, 25.3 percent among blacks, 23.0 percent for Hispanics, and 17.7 percent for Asians (Figure 4.4).

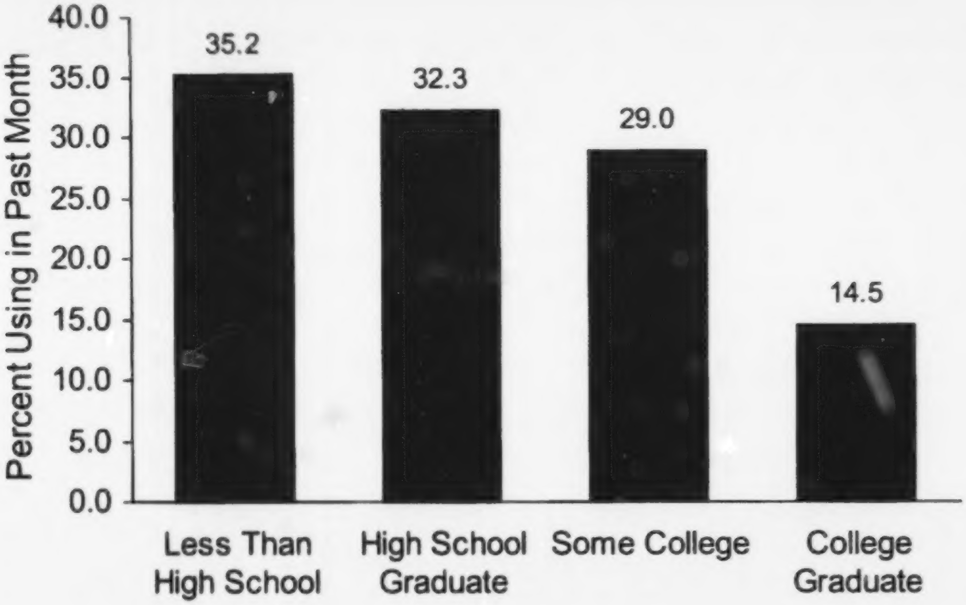
Figure 4.4 Past Month Cigarette Use among Persons Aged 12 or Older, by Race/Ethnicity: 2002



Education

- The prevalence of cigarette smoking decreased with increasing levels of education. Among adults aged 18 or older in 2002, college graduates were the least likely to report smoking cigarettes (14.5 percent) compared with 35.2 percent of adults who lacked a high school diploma (Figure 4.5).

Figure 4.5 Past Month Cigarette Use among Persons Aged 18 or Older, by Education: 2002



College Students

- Young adults aged 18 to 22 enrolled full time in college in 2002 were less likely to report current cigarette use than their peers not enrolled full time (this category includes part-time college students and persons not enrolled in college). Past month cigarette use was reported by 32.6 percent of full-time college students compared with 45.8 percent of their peers who were not enrolled full time.

Employment

- Rates of current cigarette smoking were 49.8 percent for unemployed adults aged 18 or older in 2002 compared with 27.2 percent of adults working part time and 29.6 percent of full-time employed adults.

- Rates of smokeless tobacco use by employment status in 2002 displayed a somewhat different pattern from the rates of cigarette use. The rates of past month smokeless tobacco use among persons aged 18 or older were 4.1 percent among unemployed persons, 2.2 percent among part-time workers, and 4.5 percent for those employed full time.

Geographic Area

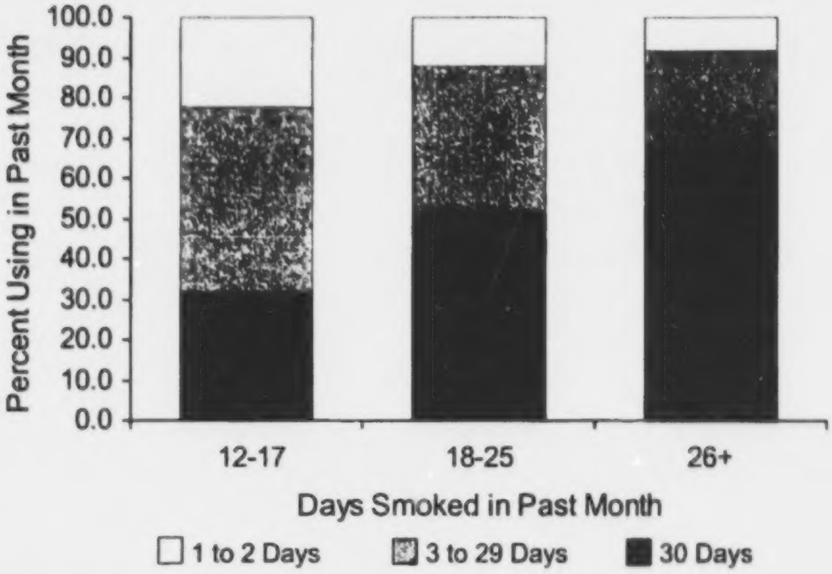
- Cigarette use rates among persons aged 12 or older varied by region of the country. Past month cigarette use ranged from a low of 21.0 percent for persons living in the Pacific division to 28.7 percent of persons living in the East South Central part of the country.

- Rates of current cigarette use among persons aged 12 or older were higher in less densely populated areas. In large metropolitan areas, 24.6 percent smoked in the past month compared with 27.1 percent in small metropolitan areas and 27.9 percent in nonmetropolitan areas. The rate of smoking was 30.6 percent in completely rural nonmetropolitan areas. For youths aged 12 to 17 in large metropolitan areas, 11.0 percent smoked in the past month compared with 20.7 percent of youths in completely rural nonmetropolitan areas.

Frequency of Cigarette Use

- Of the 61.1 million past month cigarette smokers, 63.4 percent (38.7 million) reported smoking every day in the past 30 days. Among youths aged 12 to 17 who smoked in the past month, 31.8 percent (1 million) were daily smokers (Figure 4.6). The percentage of smokers who were daily smokers increased with age to 51.8 percent for 18- to 25-year-old smokers and to 68.8 percent for smokers aged 26 or older.

Figure 4.6 Frequency of Cigarette Use among Current Smokers, by Age: 2002

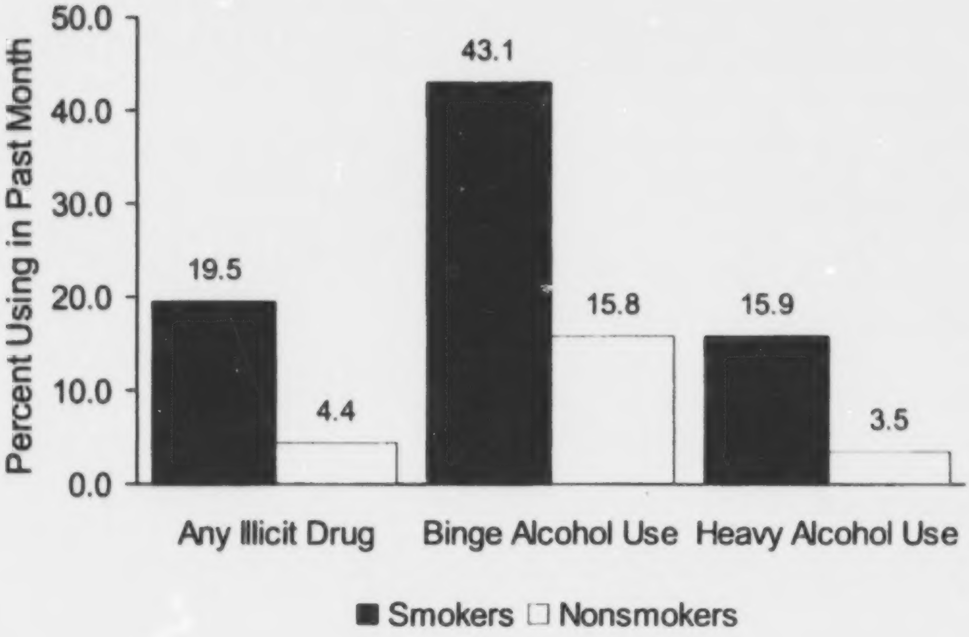


- Although 52.9 percent of all daily smokers aged 12 or older smoked a pack or more of cigarettes a day, 21.6 percent of daily smokers aged 12 to 17 reported doing so.

Association with Illicit Drug and Alcohol Use

- Current (past month) cigarette smokers were more likely to use other tobacco products, alcohol, and illicit drugs than current nonsmokers. Comparing current smokers with current nonsmokers, rates of binge alcohol use were 43.1 versus 15.8 percent, rates of heavy alcohol use were 15.9 versus 3.5 percent, and rates of current (past month) illicit drug use were 19.5 versus 4.4 percent (Figure 4.7). Rates of use of other tobacco products were 1.7 times higher for smokeless tobacco and 3.9 times higher for cigars among current smokers compared with current nonsmokers.

Figure 4.7 Past Month Any Illicit Drug, Binge Alcohol, and Heavy Alcohol Use among Smokers and Nonsmokers Aged 12 or Older: 2002



Usual Brand of Cigarettes Smoked

- There were notable racial/ethnic differences with regard to brand of cigarettes smoked most often in the past month. In 2002, almost half of white smokers aged 12 or older (43.6 percent) and more than half of Hispanic smokers (56.9 percent) reported smoking Marlboro cigarettes. Among black smokers, only 6.0 percent smoked Marlboro cigarettes, while 49.4 percent smoked Newport cigarettes.

- Three brands accounted for most of the youth cigarette smoking in 2002. Among current smokers who were 12 to 17 years of age, 49.8 percent reported Marlboro as their usual brand, 25.1 percent reported Newport, and 10.5 percent reported Camel. No other individual cigarette brand was reported by more than 2.2 percent of these youths.

- Racial/ethnic differences in usual cigarette brand used also were evident among youth smokers aged 12 to 17. Marlboro was the most frequently cited brand among white and Hispanic youth smokers (55.1 and 44.1 percent, respectively). Newport was the usual brand reported by 32.4 percent of Hispanic youth smokers. Among black youth smokers, Newport was the most frequently cited brand (73.4 percent).

5. Trends in Lifetime Prevalence of Substance Use

This chapter discusses trends in the lifetime prevalence of the use of various substances based on data from the 2002 National Survey on Drug Use and Health (NSDUH). These trends are based on estimates of the percentage of the population each year who had used a substance at least one time in their life. Estimates for youths aged 12 to 17 and young adults aged 18 to 25, by gender, from 1965 to 2002 have been produced. Selected findings are discussed.

Because of the changes in NSDUH in 2002 and the effect of these changes on estimates of substance use prevalence, this report does not compare estimates from the 2002 survey to estimates from prior surveys. However, analysis of trends in substance use can be done using just the 2002 NSDUH data based on survey questions asking about prior use. NSDUH includes questions asking about age at first use of various substances, including month and year of first use for recent new users. Using this information along with the respondent's date of birth, the interview date, and editing and imputation when necessary, an exact date of first use is determined for each substance used by each respondent. This makes it possible to construct estimates of lifetime prevalence as well as incidence (number of new users) for years prior to 2002. Details of the methods used are provided in Section B.4 of Appendix B. Estimates of incidence are discussed Chapter 6.

Because the lifetime prevalence estimates reported are based on retrospective reports of age at first substance use by survey respondents interviewed during 2002, they may be subject to several sources of bias. These include bias due to differential mortality of users and nonusers of each substance, bias due to memory errors (recall decay and telescoping), and underreporting bias due to social acceptability and fear of disclosure. See Section B.4 of Appendix B for a discussion of these biases.

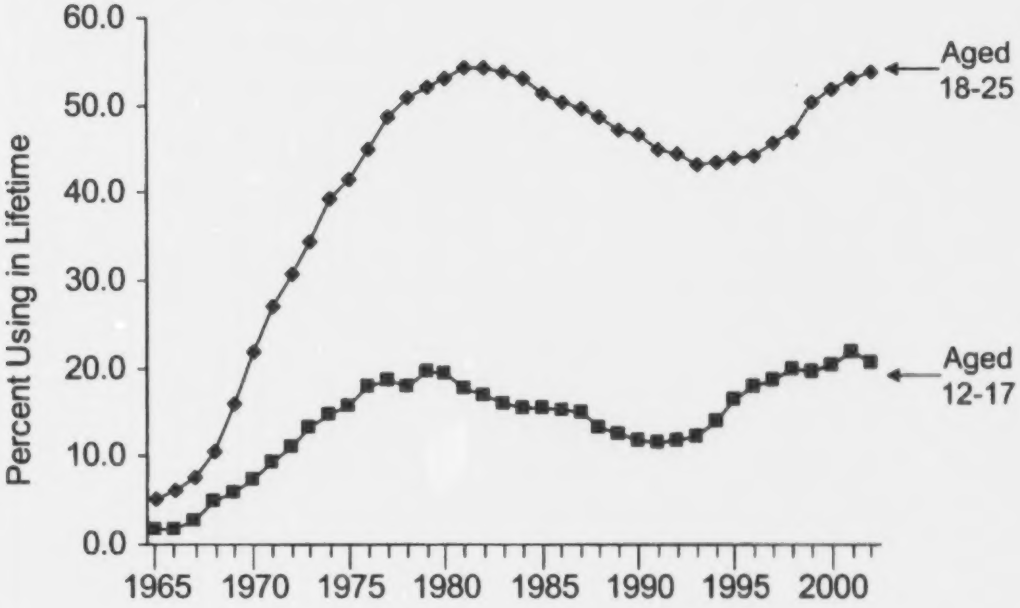
Marijuana

- The percentage of youths aged 12 to 17 who had ever used marijuana declined slightly from 2001 to 2002 (21.9 to 20.6 percent). Among young adults aged 18 to 25, the rate increased slightly from 53.0 percent in 2001 to 53.8 percent in 2002 (Figure 5.1).

- In 1965 and 1966, only 1.8 percent of youths had ever used marijuana. Beginning in 1967, use increased until it reached a peak at 19.6 percent in 1979. A period of decline followed until 1991, when the rate was 11.5 percent, after which the trend reversed, reaching a peak at 21.9 percent in 2001.

- The percentage of young adults aged 18 to 25 who had ever used marijuana was 5.1 percent in 1965, but increased steadily to 54.4 percent in 1982. Although the rate for young adults declined somewhat from 1982 to 1993, it did not drop below 43 percent and actually increased to 53.8 percent by 2002.

Figure 5.1 Lifetime Marijuana Use among Persons Aged 12 to 25, by Age Group: 1965-2002



Cocaine

- The percentage of youths aged 12 to 17 who had ever used cocaine increased slightly from 2001 to 2002 (2.3 to 2.7 percent). Among young adults aged 18 to 25, the rate increased slightly from 14.9 percent in 2001 to 15.4 percent in 2002.

- From 1965 to 1967, only 0.1 percent of youths had ever used cocaine, but rates rose throughout the 1970s and 1980s, reaching 2.2 percent in 1987. A period of decline followed in the early 1990s, after which the trend reversed, reaching a peak at 2.7 percent in 2002.

- The percentage of young adults aged 18 to 25 who had ever used cocaine was below 1 percent during the mid-1960s, but rose steadily throughout the 1970s and early 1980s, reaching 17.9 percent in 1984. By 1996, the rate had dropped to 10.1 percent, but climbed to 15.4 percent in 2002.

Heroin

- Since the mid-1990s, the prevalence of lifetime heroin use increased for both youths and young adults. From 1995 to 2002, the rate among youths aged 12 to 17 increased from 0.1 to 0.4 percent; among young adults aged 18 to 25, the rate rose from 0.8 to 1.6 percent.

Hallucinogens

- The prevalence of lifetime hallucinogen use among youths aged 12 to 17 was at its highest level in 2001 (6.1 percent) but declined to 5.7 percent in 2002. Among young adults aged 18 to 25, use increased from 14.3 percent in 1992 to 24.2 percent in 2002. The increase in hallucinogen use in the 1990s appears to have been driven by the use of Ecstasy (i.e., MDMA).

Psychotherapeutics

- Psychotherapeutics include the nonmedical use of any prescription-type pain reliever, tranquilizer, stimulant, or sedative; they also include methamphetamine. This drug category excludes over-the-counter substances.

- Lifetime nonmedical pain reliever prevalence among youths aged 12 to 17 increased from 2001 (9.6 percent) to 2002 (11.2 percent), continuing an increasing trend from 1989 (1.2 percent). Among young adults aged 18 to 25, the rate increased from 19.4 percent in 2001 to 22.1 percent in 2002. The young adult rate had been 6.8 percent in 1992.

- Lifetime nonmedical use of stimulants increased steadily from 1990 to 2002 for youths aged 12 to 17 (0.7 to 4.3 percent). For young adults aged 18 to 25, rates declined from 1981 to 1994 (from 10.9 to 5.9 percent), then increased to 10.8 percent in 2002. Rates increased between 2001 and 2002 for both youths (3.8 to 4.3 percent) and young adults (10.2 to 10.8 percent).

Cigarettes

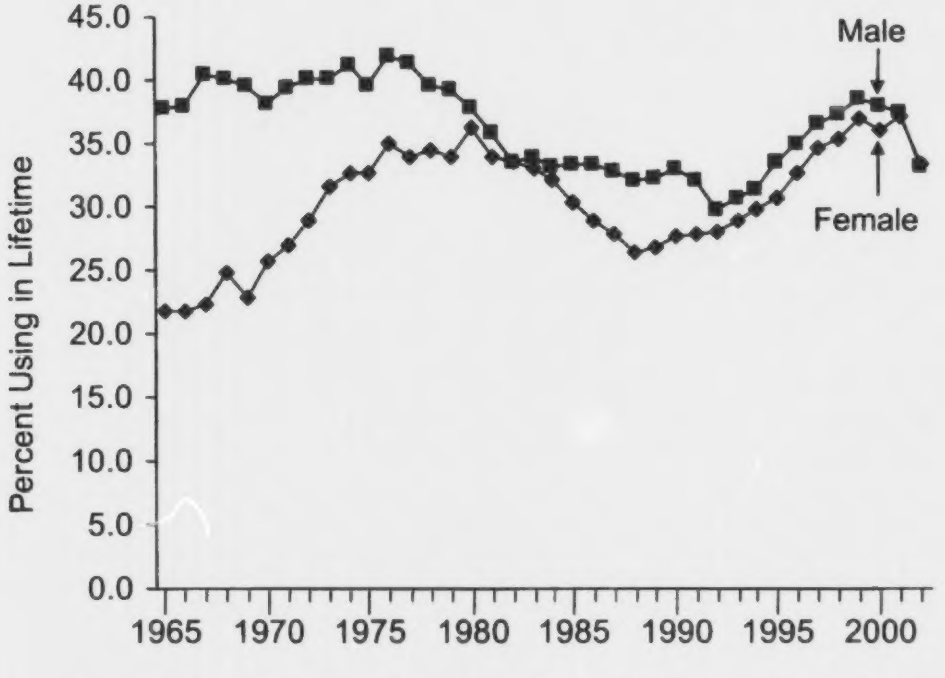
- The rate of lifetime cigarette use among youths aged 12 to 17 has remained between 29 and 39 percent in every year since 1965. Although the rate increased during the 1990s from 30.3 percent in 1990 to 37.8 percent in 1999, there was a significant decline from 2001 to 2002 (from 37.3 to 33.3 percent).

- From 1965 to 1980, there was little change in the rate of lifetime cigarette use among boys aged 12 to 17. Rates were 37.9 percent in 1965 and 37.8 percent in 1980. However, during that period, the rate among adolescent girls increased from 21.7 to 36.2 percent. Since 1980, rates for girls have been nearly the same as the rates for boys (Figure 5.2).

- The rate of lifetime daily cigarette use among youths aged 12 to 17 declined from 10.6 percent in 2001 to 8.2 percent in 2002. There also was a small decline in lifetime prevalence among young adults (37.7 to 37.1 percent) from 2001 to 2002.

- Since 1965, the rate of lifetime cigarette use among young adults aged 18 to 25 has been between 65 and 72 percent.

Figure 5.2 Lifetime Cigarette Use among Youths Aged 12 to 17, by Gender: 1965-2002

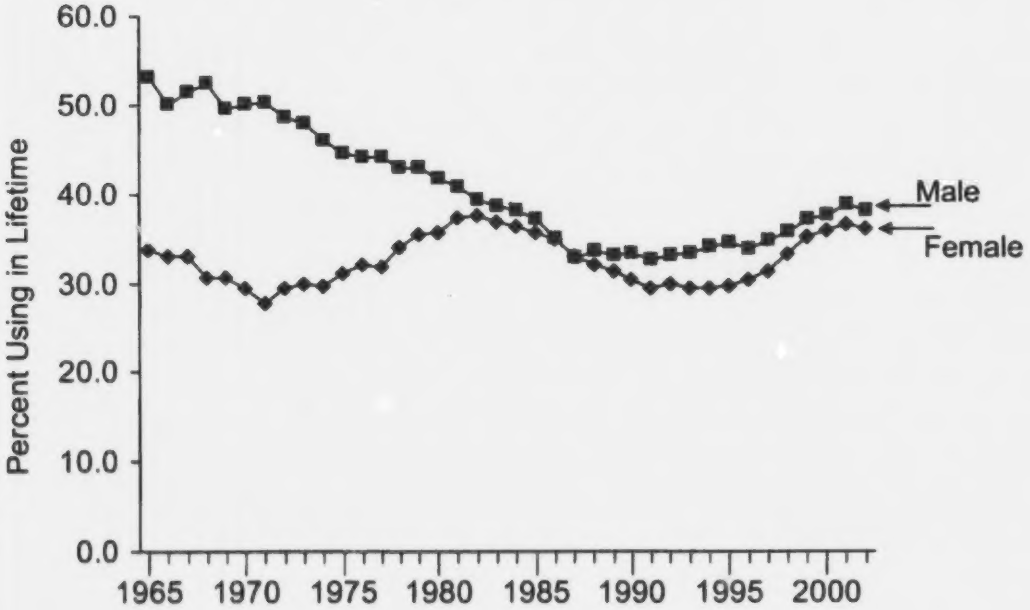


- Among young adults aged 18 to 25, trends in the rate of lifetime daily smoking have been different for males and females. During the 1960s, half of young adult males had smoked daily, and only a third of women aged 18 to 25 had smoked daily. From 1971 to 1987, the rate among men declined from 50.2 to 32.8 percent. In contrast, among women the rate increased from 27.8 percent in 1971 to 37.6 percent in 1982, then dropped to 32.9 percent in 1987, similar to the rate for men. From 1987 to 2001, rates increased somewhat for both men and women, but between 2001 and 2002 the rates dropped slightly (38.8 to 38.1 percent for men; 36.5 to 36.1 percent for women) (Figure 5.3).

Cigars

- Consistent with trends in cigar initiation (Chapter 6), the prevalence of lifetime cigar use increased significantly during the late 1990s. Among youths aged 12 to 17, the rate increased from 6.8 percent in 1995 to 16.6 percent in 2001, then held at 16.3 percent in 2002. Among young adults aged 18 to 25, the rate increased from 25.8 percent in 1995 to 44.2 percent in 2001, and then to 45.6 percent in 2002.

Figure 5.3 Lifetime Daily Cigarette Use among Young Adults Aged 18 to 25, by Gender: 1965-2002



6. Trends in Initiation of Substance Use

Estimates of substance use incidence, or initiation, concern the number of new users of illicit drugs, alcohol, or tobacco during a given year. These estimates supplement prevalence estimates as measures of the Nation's substance use problem. Where prevalence estimates describe the extent of use of substances over some period of time, incidence data describe emerging patterns of use, particularly among young people. In the past, increases and decreases in incidence usually have been followed by corresponding changes in the prevalence of use, particularly among youths.

The incidence estimates in this report are based on the 2002 National Survey on Drug Use and Health (NSDUH). As the 2002 NSDUH constitutes a new baseline year for the survey, these data should not be compared with previously published data from the National Household Survey on Drug Abuse (NHSDA).

The incidence estimates are based on NSDUH questions on age at first use, year and month of first use for recent initiates, the respondent's date of birth, and the interview date. Using this information along with editing and imputation when necessary, an exact date of first use is determined for each substance used by each respondent. By applying sample weights to incidents of first use, estimates of the number of new users of each substance are developed for each year. These estimates include the number of new users at any age (including those younger than age 12) and also are shown for two specific age groups—persons younger than 18 and adults aged 18 or older. In addition, the average age of new users in each year and age-specific rates of first use are estimated.

Although they are not discussed in this chapter, estimates of age-specific incidence rates also are developed. These rates are defined as the number of new users per 1,000 potential new users because they indicate the rate of new use among persons who have not yet used the substance (i.e., potential new users). More precisely, the rates are actually the number of new users per 1,000 person-years of exposure. This measure is widely used in describing the incidence of disease. The method used for computing these rates is described in Section B.4 in Appendix B.

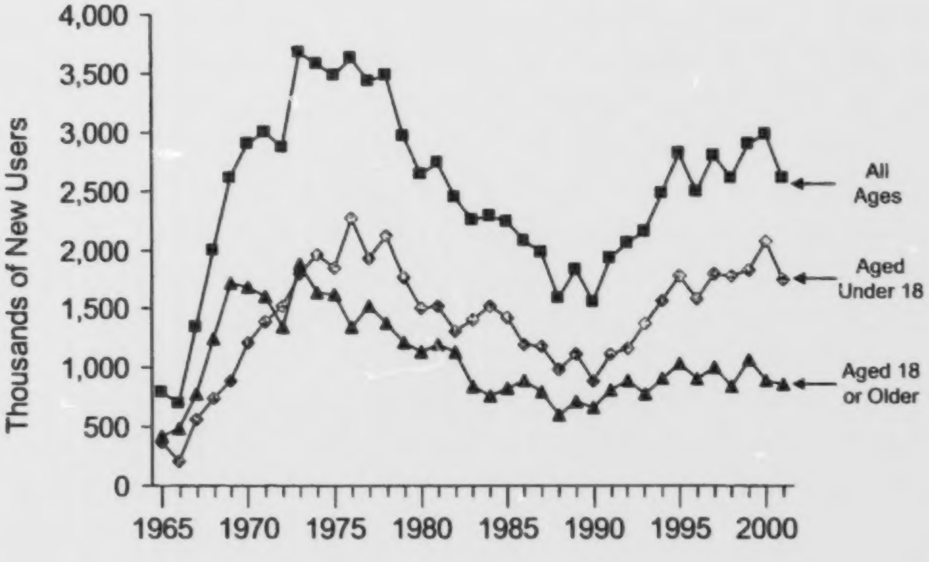
Because the incidence estimates reported herein are based on retrospective reports of age at first substance use by survey respondents interviewed during 2002, they may be subject to several sources of bias. These include bias due to differential mortality of users and nonusers of each substance, bias due to memory errors (recall decay and telescoping), and underreporting bias due to social acceptability and fear of disclosure. See Section B.4 in Appendix B for a discussion of these biases. It is possible that some of these biases, particularly telescoping and underreporting because of fear of disclosure, may be affecting estimates for the most recent years more significantly than estimates for earlier years. To account for this bias in the interpretation of the trends, a more stringent standard for determining statistical significance involving estimates from the most recent years (1998 and later) is used in this chapter. Differences are reported to be statistically significant only if they differ at the $\alpha = .01$ level. The usual standard in the rest of the report is the $\alpha = .05$ level. This is an arbitrary standard that provides some protection against incorrect conclusions in the face of potential biases that can fluctuate and even change the direction of estimates from year to year. A more thorough analysis of the problem will be conducted in the future.

Because the incidence estimates are based on retrospective reports of age at first use, the most recent year available for these estimates is 2001, based on the 2002 NSDUH. For two of the measures, first alcohol use and first cigarette use, initiation before age 12 is common. A 2-year lag in reporting for "all ages" estimates is applied for these measures because the NSDUH sample does not cover youths under age 12. The 2-year lag ensures that initiation at ages 10 and 11 is captured in the estimation.

Marijuana

- There were an estimated 2.6 million new marijuana users in 2001. This number is similar to the numbers of new users each year since 1995, but above the number in 1990 (1.6 million).
- In 1965, there were an estimated 0.8 million new users of marijuana. The annual number of marijuana initiates generally increased until about 1973. From 1973 to 1978, the annual number of marijuana initiates remained level at approximately 3.5 million per year. After that, the number of initiates declined to 1.6 million in 1990, then rose to 2.8 million in 1995. From 1995 to 2001, there was no consistent trend, with estimates varying between 2.5 and 3.0 million per year (Figure 6.1)

Figure 6.1 Annual Numbers of New Users of Marijuana: 1965-2001



- In 2001, about two thirds (67 percent) of new marijuana users were under age 18. This proportion has generally increased since the 1960s, when less than half of initiates were under 18. (Figure 6.1) The average age of marijuana initiates was around 19 in the late 1960s and 17.1 in 2001.

- Since 1975, about half of marijuana initiates each year were females (51 percent in 2001). Prior to 1975, females comprised fewer than half of new users, on average. Since 1965, the average age of female initiates has generally been slightly higher than the average age for male initiates.

Cocaine

- Incidence of cocaine use generally rose throughout the 1970s to a peak in 1980 (1.7 million new users) and subsequently declined until 1991 (0.7 million new users). Cocaine initiation steadily increased during the 1990s, reaching 1.2 million in 2001.

- Age-specific incidence rates generally have mirrored the overall incidence trends, with greater initiation among adults than among youths under 18. Approximately 70 percent of cocaine initiates in 2001 were age 18 or older.

- Since 1975, males have generally comprised the majority of cocaine initiates. In 2001, there were 0.7 million new male users and 0.5 million new female users.

- The average age of cocaine initiates rose from 18.6 years in 1968 to 23.8 years in 1990 and subsequently declined to approximately 21 years from 1995 to 2001.

Heroin

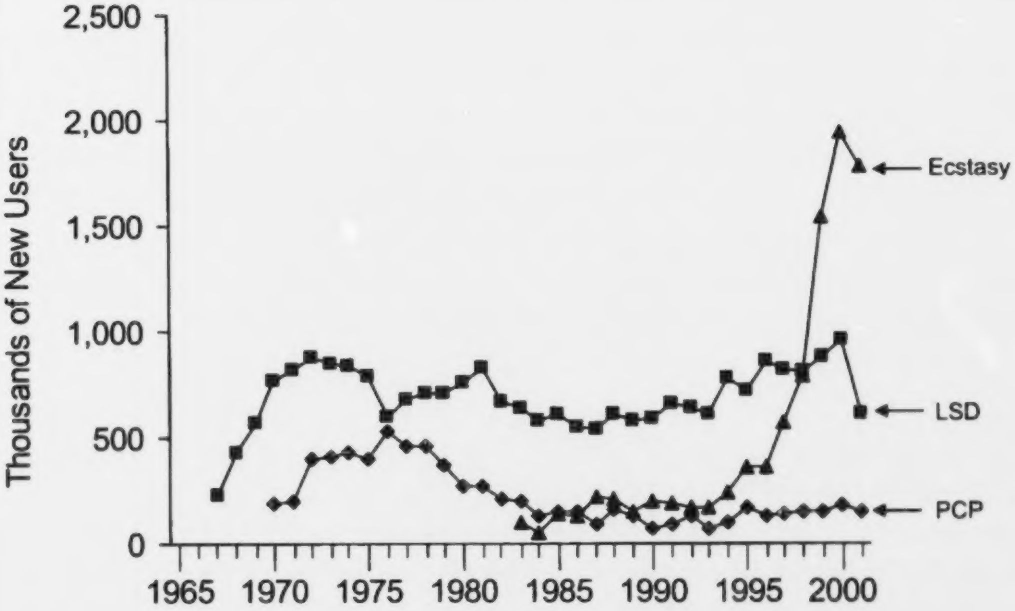
- During the latter half of the 1990s, the annual number of heroin initiates rose to a level not reached since the late 1970s. In 1974, there were an estimated 246,000 heroin initiates. Between 1988 and 1994, the annual number of new users ranged from 28,000 to 80,000. Between 1995 and 2001, the number of new heroin users was consistently greater than 100,000.

Hallucinogens

- The incidence of hallucinogen use has exhibited two notable periods of increase. Between 1966 and 1970, the annual number of initiates rose almost sixfold, from 168,000 to 956,000. This increase was driven primarily by use of LSD. The second period of increase in first-time hallucinogen began in 1992 when there were approximately 706,000 new users. By 2000, the number of initiates rose to 1.7 million, which is similar to the number for 2001 (1.6 million). The hallucinogen increase in the 1990s appears to have been driven by increases in use of Ecstasy (i.e., MDMA) (Figure 6.2).

- Initiation of Ecstasy use has been rising since 1993, when there were 168,000 new users. There were 1.9 million initiates in 2000 and 1.8 million in 2001 (not a statistically significant decline).

Figure 6.2 Annual Numbers of New Users of Ecstasy, LSD, and PCP: 1965-2001



- LSD incidence dropped from 958,000 new users in 2000 to 606,000 in 2001.

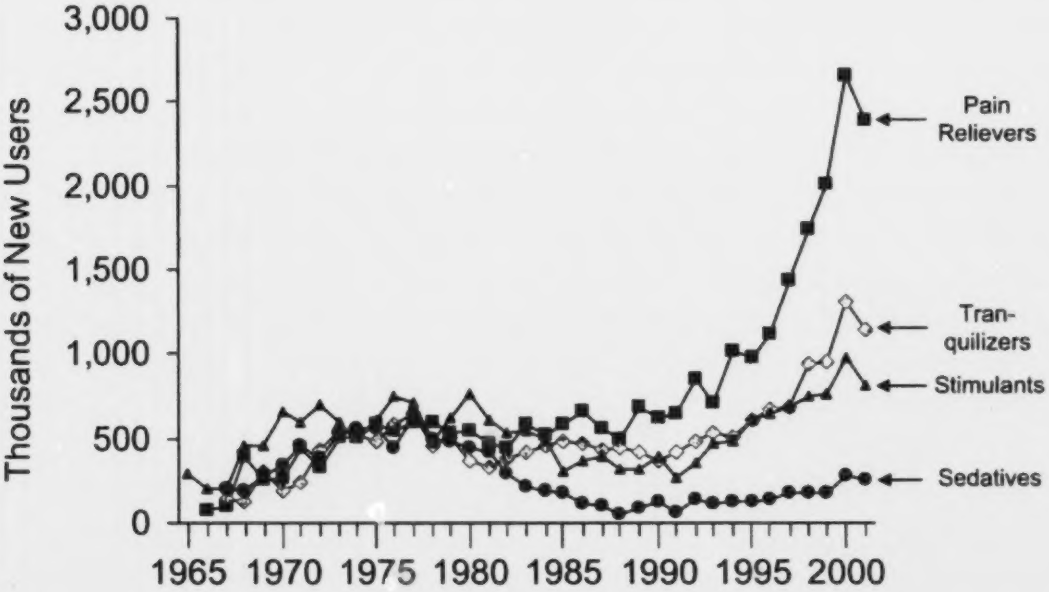
Inhalants

- The number of new inhalant users increased from 627,000 new users in 1994 to 1.2 million in 2000. During this period, more males initiated inhalant use than females. The number of new inhalant users in 2001 was similar to the number in 2000 (1.1 million).
- Inhalant initiates in 2001, as well as in prior years, were predominantly under age 18 (71 percent in 2001).

Psychotherapeutics

- This category includes nonmedical use of any prescription-type pain reliever, tranquilizer, stimulant, or sedative; it also includes methamphetamine. This category does not include over-the-counter substances.
- Pain reliever incidence increased from 1990, when there were 628,000 initiates, to 2000, when there were 2.7 million (Figure 6.3). In 2001, the number was 2.4 million, not significantly different from 2000. About half (52 percent) of the new users in 2001 were females.

Figure 6.3 Annual Numbers of New Nonmedical Users of Psychotherapeutics: 1965-2001



- First use of stimulants increased during the 1990s from 270,000 in 1991 to 983,000 in 2000 and 808,000 in 2001.

- Incidence of methamphetamine use rose between 1991 (210,000 new users) and 1998 (454,000 new users). Since then, there have been no statistically significant changes. There were an estimated 326,000 methamphetamine initiates in 2001.

- Initiation of tranquilizer use increased steadily during the 1990s, from 373,000 initiates in 1990 to 1.3 million in 2000 and 1.1 million in 2001.

- The number of sedative initiates has remained below 300,000 per year after 1981. During the 1970s, the estimates had risen above 500,000 per year from 1973 to 1975 and peaked at 638,000 in 1977.

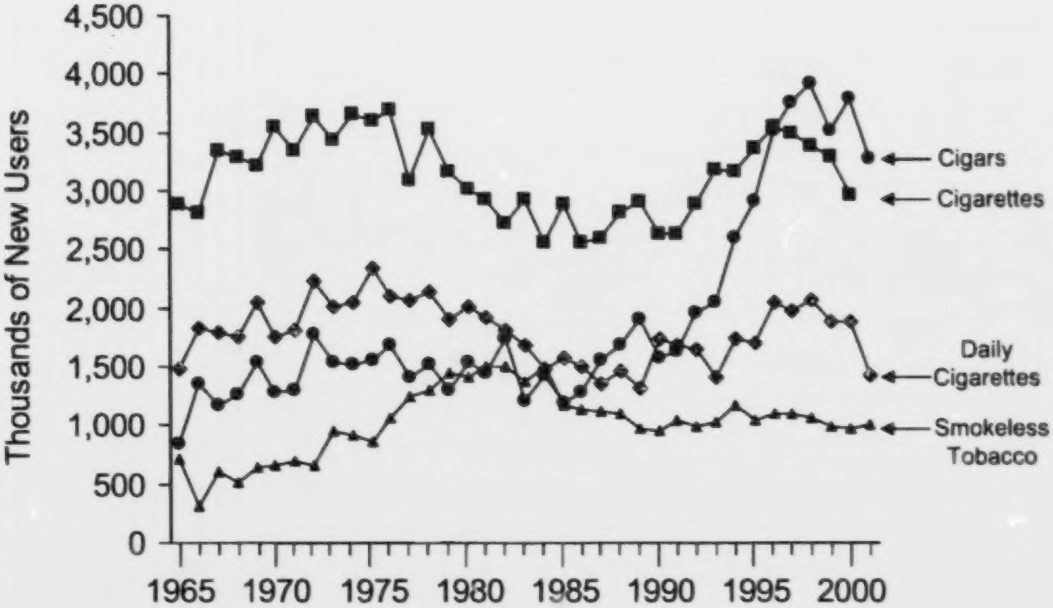
Alcohol

- Alcohol incidence increased steadily during the 1990s, from 3.3 million new users in 1990 to 5.6 million in 2000. Youths under 18 accounted for much of the increase, the number of adolescent initiates nearly doubling from 2.2 million in 1990 to 4.1 million in 2000. During this period, the increase was equally distributed among boys (1.1 million to 2.1 million) and girls (1.1 million to 2.0 million).

Tobacco

- Cigarette initiation increased from 2.6 million initiates in 1990 to 3.6 million in 1996, then decreased to 3.0 million in 2000. Initiation of cigarette use among youths under 18 significantly decreased from 2.8 million new users in 1996 to 2.2 million in 2000 (Figure 6.4).

Figure 6.4 Annual Numbers of New Users of Tobacco: 1965-2001



- The number of new daily smokers decreased from 2.1 million in 1998 to 1.4 million in 2001. Among youths under 18, the number of new daily smokers decreased from 1.1 million per year between 1997 and 2000 to 757,000 in 2001. This corresponds to a decrease from about 3,000 to about 2,000 new youth smokers per day.

- Approximately three quarters (75 percent) of persons who tried their first cigarette in 2000 were under age 18. Among persons who first began daily smoking in 2001, about half (53 percent) were under age 18. Of the approximately 4,000 new regular smokers per day in 2001, approximately 2,000 per day were under age 18.

- Initiation of cigar smoking more than doubled during the 1990s, from 1.6 million new users in 1990 to 3.9 million in 1998. In 2001, the number of new users dropped to 3.3 million. Since 1990, youths under 18 have constituted an increasingly greater proportion of the number of new cigar smokers, from 21 percent in 1991 to 48 percent in 2001.

7. Youth Prevention-Related Measures

This chapter presents results from the 2002 National Survey on Drug Use and Health (NSDUH) for various measures related to the prevention of substance use among youths aged 12 to 17. These measures include perceptions of risk, availability of substances (cigarettes, alcohol, and illicit drugs), perceived parental disapproval of substance use, attitudes toward school and religion, participation in youth activities, involvement in delinquent behavior, and exposure to substance abuse prevention messages and programs.

NSDUH includes an extensive set of questions about risk and protective factors directed at youths aged 12 to 17. Risk factors include those individual characteristics or social environments associated with an increased likelihood of substance use, while protective factors are related to a decreased likelihood of substance use. These factors derive from circumstances, influences, and perceptions at many levels, such as the individual, peer, family, school, and community levels (Hawkins, Catalano, & Miller, 1992). One goal of research on preventing substance use has been to identify both risk factors and protective factors, and, subsequently, design programs that might decrease substance use.

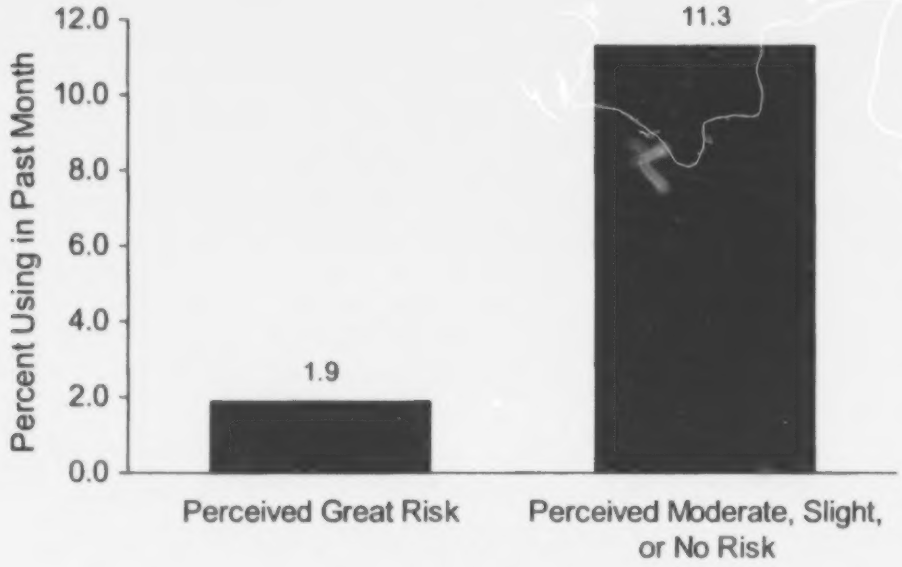
Perceptions of Risk

- Youths were asked how much they thought people risk harming themselves physically and in other ways when they use various substances. Response choices in the survey were "great risk," "moderate risk," "slight risk," or "no risk." Only 32.4 percent of youths indicated that smoking marijuana once a month was a great risk. A higher percentage of youths perceived a great risk in using cocaine once a month (50.5 percent). Smoking one or more packs of cigarettes per day was cited as a great risk by 63.1 percent of youths. About three fifths of all youths (62.2 percent) thought that having four or five drinks of an alcoholic beverage nearly every day was a great risk.

- Youths of different ages reported different patterns of perceived risk from substance use. For alcohol and cigarettes, the percentages indicating great risk were similar for youths aged 12 or 13 and those aged 16 or 17. For example, 61.8 percent of 12 or 13 year olds and 65.1 percent of 16 or 17 year olds believed that smoking one or more packs of cigarettes per day was a great risk. The percentage of youths who perceived smoking marijuana once a month as a great risk decreased with age. Specifically, 42.0 percent of youths aged 12 or 13 and 24.1 percent of youths aged 16 or 17 perceived smoking marijuana once a month as a great risk. In contrast, the percentage of youths who perceived using cocaine once a month as a great risk increased with age. Specifically, 42.8 percent of youths aged 12 or 13 and 59.2 percent of those aged 16 or 17 perceived a great risk of using cocaine once a month.

- Among youths indicating that "smoking marijuana once a month" was a "great risk," only 1.9 percent indicated that they had used marijuana in the past month. However, among youths who indicated "moderate, slight, or no risk," the prevalence rate was 11.3 percent—almost 6 times larger (Figure 7.1).

Figure 7.1 Past Month Marijuana Use among Youths Aged 12 to 17, by Perceived Risk of Smoking Marijuana Once a Month: 2002



Availability

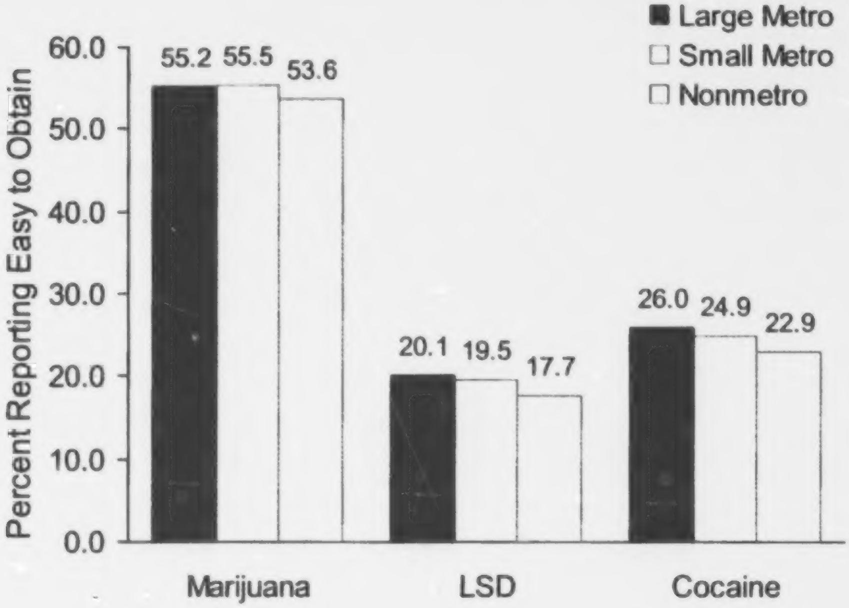
- Approximately one in six youths (16.7 percent) reported that they had been approached by someone selling drugs in the past month. Those who had been approached reported a much higher rate of past month use of an illicit drug than those who had not been approached (36.2 and 6.7 percent, respectively).

- Slightly more than half of youths aged 12 to 17 indicated that it would be fairly or very easy to obtain marijuana if they wanted some (55.0 percent). Yet the ease of obtaining marijuana varied greatly by age. Only 26.0 percent of 12 or 13 year olds indicated that it would be fairly or very easy to obtain marijuana, but 79.0 percent of those 16 or 17 years of age indicated that it would be fairly or very easy to obtain this substance.

- The percentages of youths reporting that it was fairly or very easy to obtain specific drugs were 25.0 percent for cocaine, 19.4 percent for LSD, and 15.8 percent for heroin.

- The percentage of youths who reported that it would be fairly or very easy to obtain marijuana was similar for youths who lived in large metropolitan areas (55.2 percent), small metropolitan areas (55.5 percent), and nonmetropolitan areas (53.6 percent) (Figure 7.2). There were some statistically significant differences across metropolitan and nonmetropolitan areas in the percentages of youths reporting that it would be easy to obtain cocaine, heroin, and LSD; however, these differences were typically quite small.

Figure 7.2 Perceived Availability of Selected Drugs among Youths Aged 12 to 17, by County Type: 2002



Parental Disapproval of Substance Use

- Youths who perceived that their parents would "strongly disapprove" of their use of illicit substances were much less likely to use those substances than youths who perceived that their parents would only "somewhat disapprove" or "neither approve nor disapprove." For example, among youths who perceived that their parents would strongly disapprove of smoking one or more packs of cigarettes a day (89.5 percent of youths), only 9.4 percent had used cigarettes in the past month compared with 44.0 percent of youths who perceived that their parents would not strongly disapprove.

- Most youths (89.1 percent) reported that their parents would strongly disapprove of their trying marijuana once or twice. Among these youths, only 5.5 percent had used marijuana in the past month. However, among youths who perceived that their parents would only somewhat disapprove or neither approve nor disapprove of their trying marijuana, 30.2 percent reported past month use of marijuana.

Attitudes about School

- Youths were asked whether they liked or kind of liked school, whether assigned schoolwork was meaningful and important, whether their courses at school during the past year were very or somewhat interesting, whether the things learned in school during the past year would be important later in life, and whether teachers always or sometimes in the past year let them know that they were doing a good job with schoolwork. Youths who had these types of positive attitudes about their school were less likely to use substances than other students. For example, 78.8 percent of youths reported that they "liked or kind of liked going to school." Among those youths, 9.3 percent had used an illicit drug in the past month; however, among youths who either "didn't like it very much" or "hated it," 20.8 percent had used an illicit drug in the past month.

Delinquent Behavior

- Approximately one fifth (20.6 percent) of youths aged 12 to 17 reported having gotten into a serious fight at school or work one or more times during the past year. Taking part in a group-against-group fight was reported by 15.9 percent of youths. Other delinquent activities included carrying a handgun (3.3 percent), selling illegal drugs (4.4 percent), stealing (or trying to steal) something worth more than $50 (4.9 percent), and attacking others with the intent to seriously hurt them (7.8 percent).

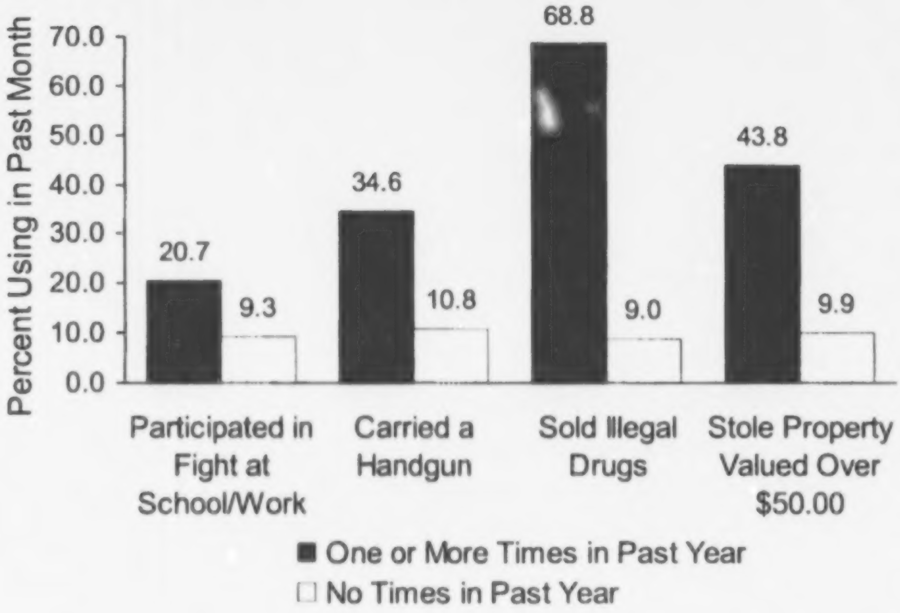
- Youths who self-reported delinquent behavior during the past year were more likely to use illicit drugs in the past month than other youths. Specifically, youths reported the following levels of using an illicit drug in the past month depending on whether or not they had engaged in the delinquent behavior: getting into a serious fight at school or work (20.7 vs. 9.3 percent); carrying a handgun (34.6 vs. 10.8 percent); selling illegal drugs (68.8 vs. 9.0 percent); and stealing or trying to steal something worth $50 or more (43.8 vs. 9.9 percent) (Figure 7.3).

Participation in Religious and Other Activities

- Among youths who attended religious services 25 times or more in the past year (33.0 percent of youths), 7.1 percent had used an illicit drug in the past month. Among youths attending less often or not at all, 13.9 percent reported past month use. Among youths who agreed or strongly agreed that religious beliefs are a very important part of their life (78.2 percent of all youths), 9.2 percent had used an illicit drug in the past month. In contrast, among youths who "disagreed or strongly disagreed" with the statement, 20.5 percent had used an illicit drug.

- Among youths who participated in two or more youth activities, such as band, sports, student government, or dance lessons (84.6 percent of youths), only 10.7 percent had used an illicit drug in the past month. On the other hand, among those youths indicating one or no youth activities in the past year, 17.3 percent had used an illicit drug in the past month.

Figure 7.3 Past Month Illicit Drug Use among Youths Aged 12 to 17, by Participation in Delinquent Behaviors: 2002



Exposure to Prevention Messages and Programs

- In 2002, a majority (83.2 percent) of youths aged 12 to 17 reported having seen or heard alcohol or drug prevention messages outside of school in the past year. Youths who had seen or heard these messages indicated a slightly lower past month use of an illicit drug (11.3 percent) than youths who had not seen or heard these types of messages (13.2 percent).

- Among youths aged 12 to 17 who were enrolled in school during the past 12 months, 78.8 percent reported having seen or heard drug or alcohol prevention messages in school during that period. Of those indicating they had seen or heard these messages, the rate of past month illicit drug use was 10.9 percent compared with 14.6 percent for the remaining youths.

- Over half of all youths aged 12 to 17 (58.1 percent) indicated that they had talked with at least one parent in the past year about the dangers of tobacco, alcohol, or drug use. The prevalence rate for past month use of an illicit drug was 11.3 percent among this group and 12.1 percent among those who had not had this parental discussion.

- Youths were asked if they had participated in various special programs dealing with substance use and other related problems in the past year. These programs and the percentage of youths participating were problem-solving, communication skills, or self-esteem groups (23.5 percent); violence prevention programs (17.1 percent); alcohol, tobacco, or drug prevention programs outside of school (12.7 percent); pregnancy or sexually transmitted disease (STD) prevention programs (13.9 percent); and programs for dealing with alcohol or drug use (5.5 percent).

8. Substance Dependence, Abuse, and Treatment

The National Survey on Drug Use and Health (NSDUH) includes a series of questions to assess dependence on and abuse of substances, including alcohol and illicit drugs, which include nonmedical use of prescription-type drugs. These questions are designed to measure dependence and abuse based on criteria specified in the *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition (DSM-IV) (American Psychiatric Association [APA], 1994). The questions on dependence ask about health, emotional problems, attempts to cut down on use, tolerance, withdrawal, and other symptoms associated with substances used. The questions on abuse ask about problems at work, home, and school; problems with family or friends; physical danger; and trouble with the law due to substances used. Dependence reflects a more severe substance problem than abuse, and persons are classified with abuse of a particular substance only if they are not dependent on that substance.

This chapter provides estimates of the prevalence and patterns of substance dependence and abuse in the Nation from the 2002 NSDUH. It also provides estimates of the prevalence and patterns of the receipt of treatment for problems related to substance use. The third section of this chapter discusses the need for and receipt of "specialty" treatment for problems associated with substance use.

8.1 Substance Dependence and Abuse

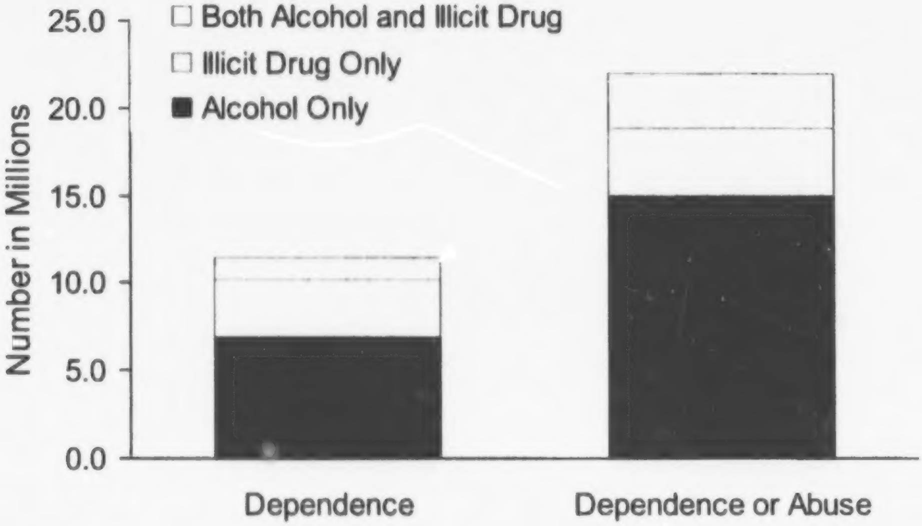
- An estimated 22.0 million Americans aged 12 or older in 2002 were classified with substance dependence or abuse (9.4 percent of the total population). Of these, 3.2 million were classified with dependence on or abuse of both alcohol and illicit drugs, 3.9 million were dependent on or abused illicit drugs but not alcohol, and 14.9 million were dependent on or abused alcohol but not illicit drugs (Figure 8.1).

- Of the 22.0 million persons with substance dependence or abuse in 2002, about half (11.5 million) were substance dependent. Of these, 1.3 million were classified with dependence on both alcohol and illicit drugs, 6.9 million were classified with dependence on alcohol but not illicit drugs, and 3.3 million were classified with dependence on illicit drugs but not alcohol.

- Of the 7.1 million Americans classified with dependence on or abuse of illicit drugs, 4.3 million were dependent on or abused marijuana. This represents 1.8 percent of the total population aged 12 or older and 60.3 percent of all those classified with illicit drug dependence or abuse.

- Among past year users of heroin in 2002, 53.0 percent (0.2 million) were classified with dependence on or abuse of heroin. Among past year users of cocaine, 25.2 percent (1.5 million) were classified with dependence on or abuse of cocaine. Among past year users of marijuana, 16.7 percent (4.3 million) were classified with dependence on or abuse of marijuana. Among past year users of pain relievers, 13.7 percent (1.5 million) were classified with dependence on or abuse of pain relievers (Figure 8.2).

Figure 8.1 Past Year Substance Dependence or Abuse among Persons Aged 12 or Older: 2002



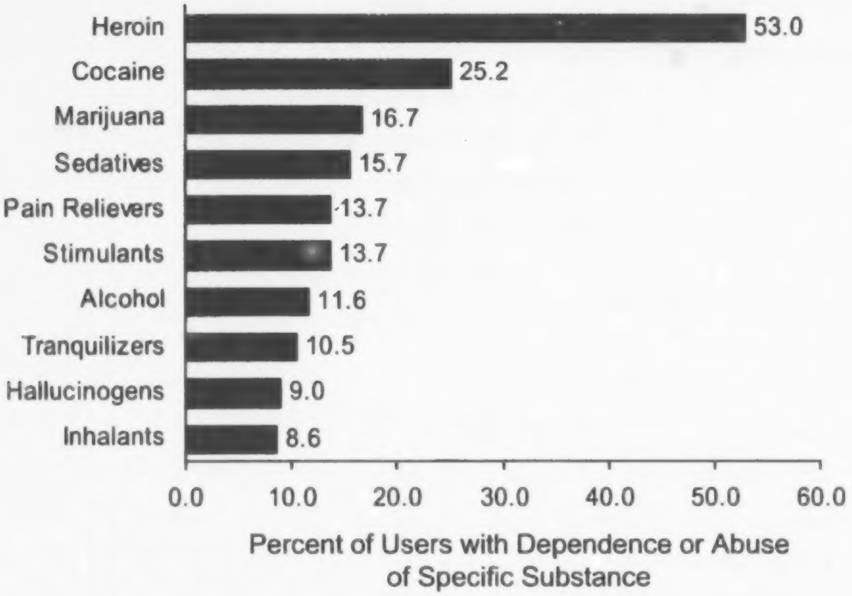
- There were 18.1 million persons classified with dependence on or abuse of alcohol (7.7 percent of the total population aged 12 or older). Among past year users of alcohol, 11.6 percent were classified with alcohol dependence or abuse.

Age at First Use

- Adults who first used drugs at a younger age were more likely to be classified with dependence or abuse than adults who initiated use at a later age. For example, among adults aged 18 or older who first tried marijuana at age 14 or younger, 13.0 percent were classified with illicit drug dependence or abuse compared with only 2.8 percent of adults who had first used marijuana at age 18 or older. This pattern of higher rates of dependence or abuse among persons initiating their use of marijuana at younger ages was observed among demographic subgroups.

- A similar pattern was observed for age at first use of alcohol and dependence on or abuse of alcohol among adults. Among adults aged 18 or older who first tried alcohol at age 14 or younger, 17.9 percent were classified with alcohol dependence or abuse compared with only 3.7 percent of adults who had first used alcohol at age 18 or older.

Figure 8.2 Dependence or Abuse of Specific Substances among Past Year Users of Substances: 2002



Age

- Rates of substance dependence or abuse showed substantial variation by age. The rate for dependence or abuse was 1.0 percent at age 12, and rates generally increased for each successive year of age until the highest rate (26.8 percent) was reached at age 21 (Figure 8.3). After age 21, the rates generally declined with age.

- The rate of substance dependence or abuse was 8.9 percent for youths aged 12 to 17; it was 21.7 percent for persons aged 18 to 25 and 7.3 percent for persons aged 26 or older. Illicit drugs accounted for 62 percent of youths with substance dependence or abuse, 38 percent of persons aged 18 to 25, and 24 percent of persons aged 26 or older (Figure 8.4).

Gender

- Among persons aged 12 or older, males (12.8 percent) were twice as likely as females (6.1 percent) to be classified with substance dependence or abuse.

- Among youths aged 12 to 17, the rate of substance dependence or abuse among females (8.6 percent) was not significantly different from the rate among males (9.3 percent).

Figure 8.3 Past Year Illicit Drug or Alcohol Dependence or Abuse, by Age: 2002

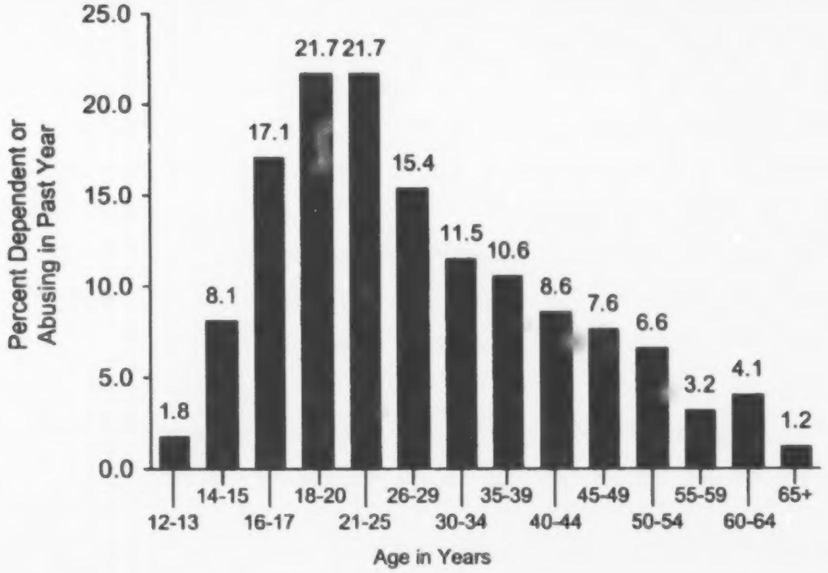
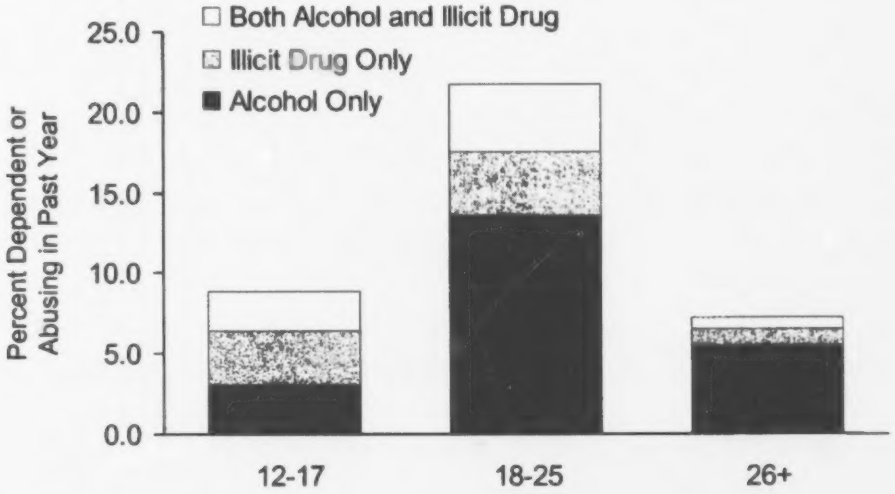


Figure 8.4 Past Year Illicit Drug or Alcohol Dependence or Abuse, by Age and Substance: 2002



Race/Ethnicity

- Among persons aged 12 or older in 2002, the rate of substance dependence or abuse was highest among American Indians/Alaska Natives (14.1 percent). The next highest rate was among persons reporting two or more races (13.0 percent). Asians had the lowest rate of dependence or abuse (4.2 percent). The rate was similar among blacks and whites (9.5 and 9.3 percent, respectively). Among Hispanics, the rate was 10.4 percent.

Education/Employment

- Rates of substance dependence or abuse varied with level of education. Among adults aged 18 or older in 2002, those who were college graduates had the lowest rate of dependence or abuse (7.1 percent), while those with some college, high school graduates, and those who were not high school graduates had significantly higher rates (10.9, 9.4, and 10.6 percent, respectively).

- Rates of substance dependence or abuse varied with current employment status. In 2002, an estimated 19.7 percent of unemployed adults aged 18 or older were classified with dependence or abuse, while 10.6 percent of full-time employed adults and 10.5 percent of part-time employed adults were classified as such.

- Most adults with substance dependence or abuse were employed either full or part time. Of the 19.8 million adults classified with dependence or abuse, 15.3 million (77.1 percent) were employed.

Criminal Justice Populations

- Adults aged 18 or older who were on parole or a supervised release from jail during the past year were more likely to be classified with dependence on or abuse of a substance (36.2 percent) than those who were not on parole or a supervised release during the past year (9.2 percent).

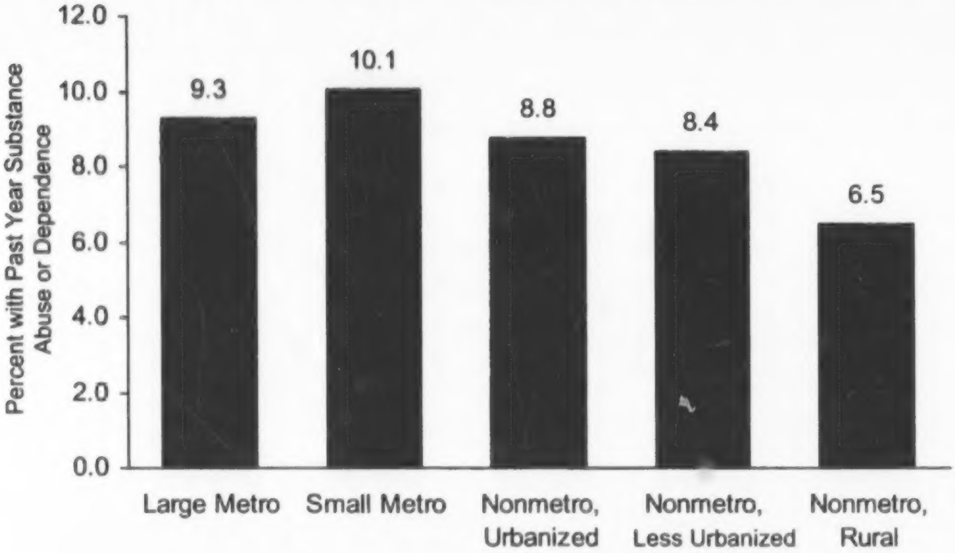
- Being on probation also was associated with substance dependence or abuse. The rate of illicit drug dependence or abuse was 37.1 percent among adults who were on probation during the past year, while the rate was only 8.8 percent among adults who were not on probation during the past year.

Geographic Area

- Rates of substance dependence or abuse for persons aged 12 or older varied by geographic region in 2002. The rate was highest for persons from the Midwest (10.2 percent). The rate was 9.6 percent for the West region, 9.0 percent for the South, and 8.7 percent for the Northeast.

- Among persons aged 12 or older, the rate for substance dependence or abuse was 9.3 percent in large metropolitan counties, 10.1 percent in small metropolitan counties, and 8.3 percent in nonmetropolitan counties. The rate was lower (6.5 percent) in completely rural counties than in large metropolitan or small metropolitan counties (Figure 8.5).

Figure 8.5 Past Year Illicit Drug or Alcohol Dependence or Abuse among Persons Aged 12 or Older, by County Type: 2002

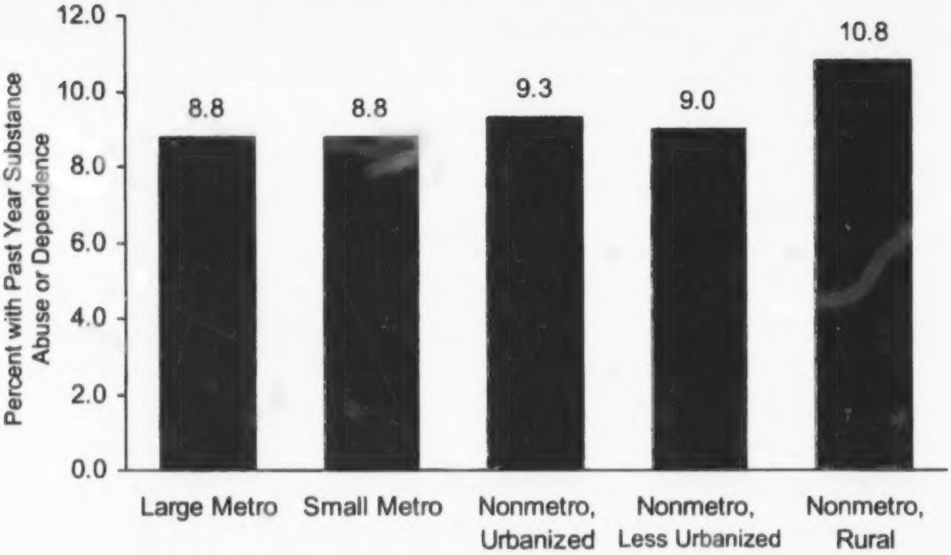


- Among youths aged 12 to 17, the rate of substance dependence or abuse was similar in metropolitan and nonmetropolitan counties (Figure 8.6). In contrast to the pattern for all ages, the rate in completely rural counties was highest (10.8 percent), but this rate was not statistically different from the rates for other county types. However, the rate of alcohol dependence or abuse among youths was significantly higher in completely rural counties (9.3 percent) than in large metropolitan counties (5.8 percent) and small metropolitan counties (5.5 percent). The rates of illicit drug dependence or abuse were 5.6 percent in both completely rural counties and large metropolitan counties and 5.8 percent in small metropolitan counties.

8.2 Treatment for a Substance Use Problem

Estimates described in this section refer to treatment received to reduce or stop drug or alcohol use, or for medical problems associated with the use of illicit drugs or alcohol. This includes treatment received in the past year at any location, such as in a hospital, at a rehabilitation facility (outpatient or inpatient), mental health center, emergency room, private doctor's office, self-help group, or prison/jail. The definition of treatment in this section is different from the definition of treatment described in Section 8.3 (specialty treatment), which excludes treatment at an emergency room, private doctor's office, self-help group, prison or jail, or at a hospital as an outpatient.

Figure 8.6 Past Year Illicit Drug or Alcohol Dependence or Abuse among Youths Aged 12 to 17, by County Type: 2002



- An estimated 3.5 million people aged 12 or older (1.5 percent of the population) received some kind of treatment for a problem related to the use of alcohol or illicit drugs in the 12 months prior to being interviewed in 2002. Of these, 1.3 million received treatment for both alcohol and illicit drugs, 0.7 million received treatment for illicit drugs but not alcohol, and 1.1 million received treatment for alcohol but not illicit drugs. (Estimates by substance do not add to the total because the total includes persons who reported receiving treatment but did not report which substance the treatment was for.)

Age, Gender, and Race/Ethnicity

- Among persons aged 12 or older in 2002, males were more likely than females to receive treatment for an alcohol or illicit drug problem in the past year (2.1 vs. 0.9 percent, respectively). Among youths aged 12 to 17, males also were more likely to receive treatment than females (1.7 vs. 1.2 percent, respectively).

- Among persons aged 12 or older in 2002, the rates of alcohol or illicit drug treatment during the 12 months prior to the interview were highest among American Indians/Alaska Natives (4.8 percent), blacks (2.2 percent), and persons reporting two or more races (2.1 percent). The lowest rate of treatment was among Asians (0.2 percent).

County Type

- The rates for any illicit drug treatment among persons aged 12 or older in 2002 were 1.0 percent in small metropolitan areas, 0.9 in large metropolitan counties, and 0.6 percent in all nonmetropolitan counties. The rate was 0.4 percent in completely rural counties.

Location and Substance

- Among the 3.5 million persons aged 12 or older who received treatment for alcohol or illicit drugs in the past year, more than half (2.0 million) received treatment at a self-help group (Figure 8.7). There were 1.5 million people who received treatment at a rehabilitation facility as an outpatient, 1.1 million who received treatment at a rehabilitation facility as an inpatient, 1.0 million at a mental health center as an outpatient, 859,000 at a hospital as an inpatient, 523,000 at a private doctor's office, 469,000 at an emergency room, and 259,000 at a prison or jail. (Note that the estimates of treatment by location include persons reporting more than one location.)

- More than half (2.2 million) of the 3.5 million persons who received treatment for a substance in the past year received treatment for alcohol during their most recent treatment (Figure 8.8). An estimated 974,000 persons received treatment for marijuana, 796,000 persons received treatment for cocaine, 360,000 for pain relievers, and 277,000 for heroin. (Note that the estimates of treatment by substance include persons reporting more than one substance.)

Figure 8.7 Locations Where Past Year Substance Treatment Was Received among Persons Aged 12 or Older: 2002

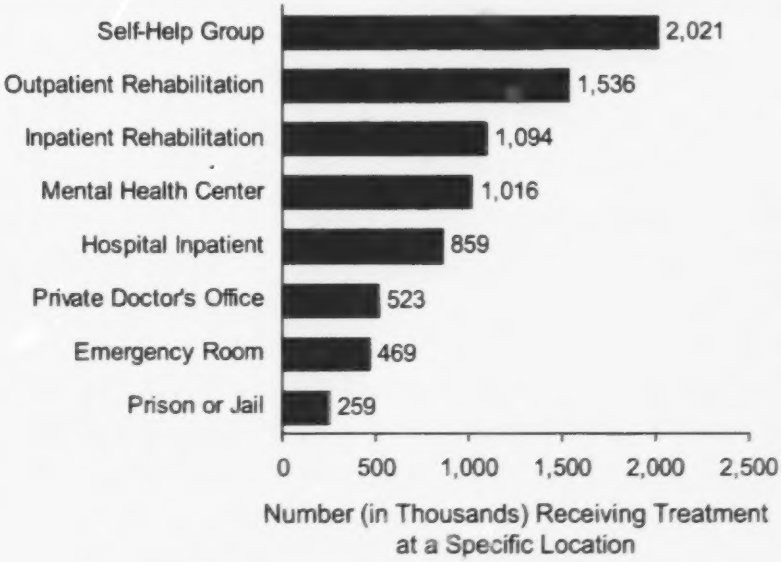


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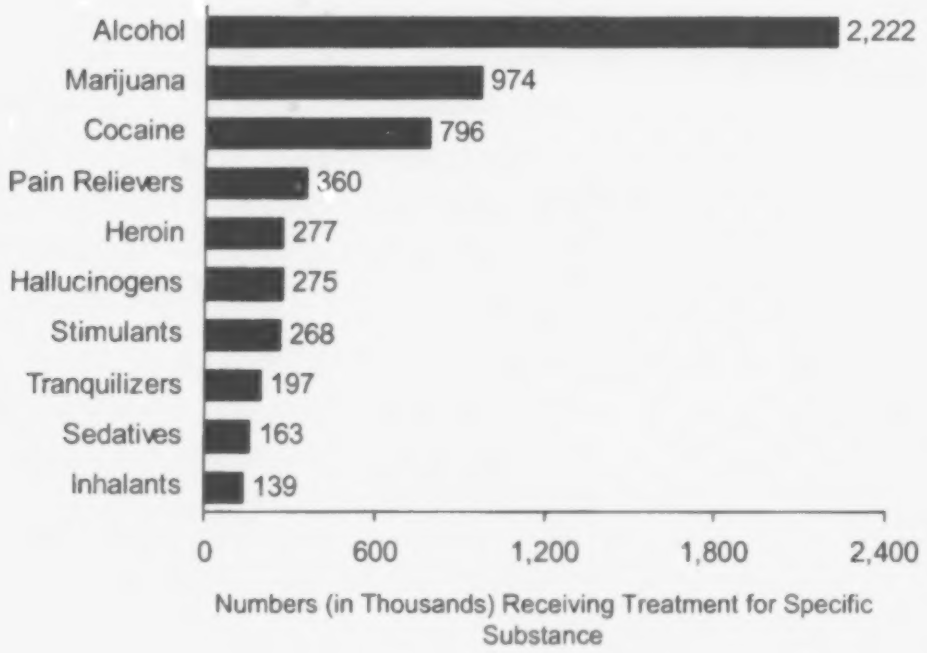
Figure 8.8 Substances for Which Persons Aged 12 or Older Received Treatment in the Past Year: 2002



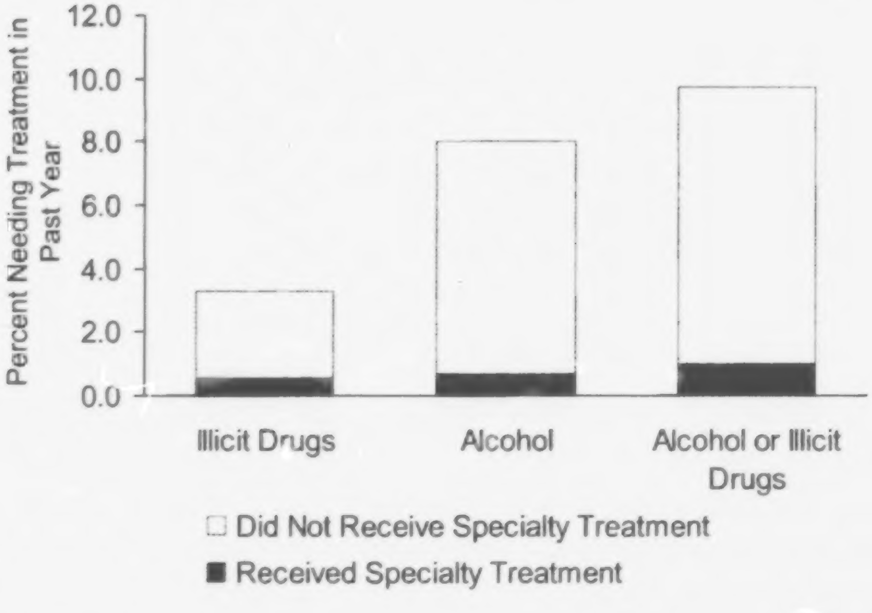
8.3 Needing and Receiving Specialty Treatment

This section discusses the need for and receipt of treatment for a substance use problem at a "specialty" treatment facility. It includes estimates of the number of persons needing and receiving treatment, as well as those needing but not receiving treatment. These estimates are specified separately for alcohol, for drugs, and for drugs or alcohol. Specialty treatment is treatment received at drug or alcohol rehabilitation facilities (inpatient or outpatient), hospitals (inpatient only), or mental health centers. It excludes treatment at an emergency room, private doctor's office, self-help group, prison or jail, or hospital as an outpatient. An individual is defined as needing treatment for an alcohol or drug problem if he or she was dependent on or abused alcohol or drugs or received specialty treatment for alcohol or drugs in the past 12 months.

An individual needing treatment for an illicit drug problem is defined as receiving treatment for his or her drug problem only if he or she reported receiving specialty treatment for drugs in the past year. Thus, an individual who needed treatment for illicit drugs but only received specialty treatment for alcohol in the past year was not counted as receiving treatment for drugs. Similarly, an individual who needed treatment for an alcohol problem who only received specialty treatment for drugs was not counted as receiving alcohol treatment. Individuals who reported receiving specialty substance abuse treatment but were missing information on whether the treatment was specifically for alcohol or drugs were not counted in estimates of specialty drug treatment or in estimates of specialty alcohol treatment; however, they were counted in estimates for "drug or alcohol" treatment.

- In 2002, the estimated number of persons aged 12 or older needing treatment for an alcohol or illicit drug problem was 22.8 million (9.7 percent of the total population). Of these, 2.3 million persons (1.0 percent of the total population aged 12 or older; 10.3 percent of those who needed treatment) received treatment at a specialty substance abuse facility in the past 12 months and 20.5 million persons (8.7 percent of the total population) did not receive treatment at a specialty substance abuse facility (Figure 8.9).

Figure 8.9 Past Year Need for and Receipt of Specialty Treatment for Any Illicit Drug or Alcohol Use among Persons Aged 12 or Older: 2002



- Of the 2.3 million people aged 12 or older (1.0 percent of the population) who received some kind of specialty substance treatment, 709,000 persons received treatment for both alcohol and illicit drugs, 840,000 persons received treatment for alcohol only, and 703,000 persons received treatment for illicit drugs only. (Estimates by substance do not add to the total because the total includes persons who reported receiving specialty treatment but did not report which substance the treatment was for.)

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- More than half of the 2.3 million persons aged 12 or older who received specialty substance treatment in the past year also received treatment at a self-help group (1.5 million persons). An estimated 458,000 had received treatment at an emergency room, 401,000 at a doctor's office, and 198,000 at a prison or jail.

- Of the 20.5 million people who needed but did not receive treatment in 2002, an estimated 1.2 million (5.8 percent) reported that they felt they needed treatment for their alcohol or drug problem. Of the 1.2 million persons who felt they needed treatment, 446,000 (37.5 percent) reported that they made an effort but were unable to get treatment and 744,000 (62.5 percent) reported making no effort to get treatment.

- There were 2.3 million youths aged 12 to 17 (9.1 percent of this population) who needed treatment for an alcohol or illicit drug problem in 2002. Of this group, only 186,000 youths received treatment (8.2 percent of youths who needed treatment), leaving an estimated 2.1 million youths who needed but did not receive treatment for a substance abuse problem.

Illicit Drug Treatment and Treatment Need

- In 2002, the estimated number of persons aged 12 or older needing treatment for an illicit drug problem was 7.7 million (3.3 percent of the total population). Of these persons, 1.4 million (18.2 percent) received treatment for drug abuse at a specialty substance abuse facility in the past 12 months (Figure 8.9).

- The estimated number of persons needing treatment for an illicit drug problem who did not receive treatment was 6.3 million people in 2002, or 2.7 percent of the total population aged 12 or older (Figure 8.9).

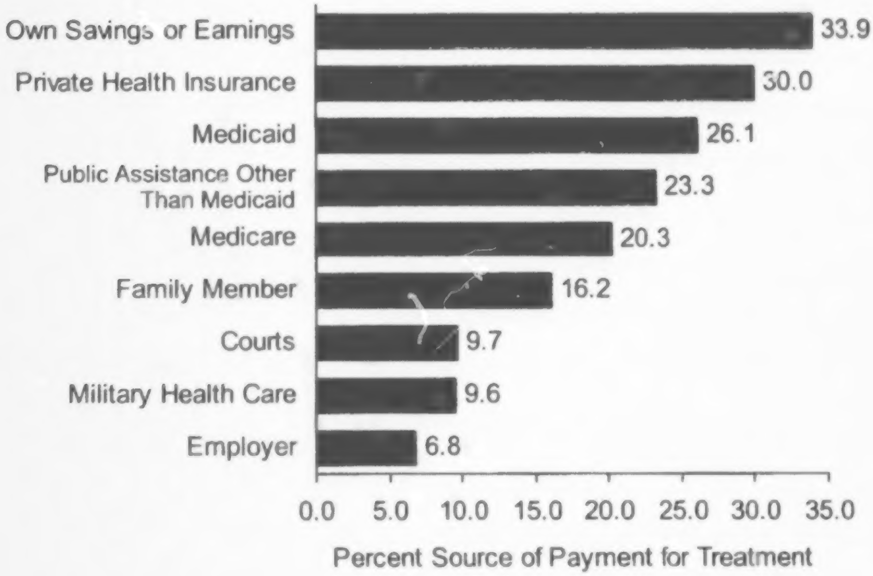
- Persons classified with dependence on or abuse of cocaine were more likely to receive specialty treatment for illicit drugs (24.3 percent) in the past year than persons classified with dependence on or abuse of any other illicit drug. The rate of specialty treatment for illicit drugs was 11.0 percent among persons with dependence on or abuse of illicit drugs. The rate was 18.2 percent for persons with dependence on or abuse of pain relievers, 13.3 percent for those with dependence on or abuse of hallucinogens, 7.6 percent for persons with dependence on or abuse of marijuana or hashish, and 4.1 percent for persons with dependence on or abuse of inhalants.

- Of the 6.3 million people aged 12 or older who needed drug treatment but did not receive treatment at a specialty facility in 2002, an estimated 362,000 (5.7 percent) reported that they felt they needed treatment for their drug problem. This included an estimated 88,000 (24.4 percent) who reported that they made an effort but were unable to get treatment and 274,000 (75.6 percent) who reported making no effort to get treatment.

- For youths aged 12 to 17, an estimated 1.4 million persons (5.7 percent) needed treatment for an illicit drug abuse problem in 2002. Of this group, only 0.1 million people received treatment (10.0 percent of youths aged 12 to 17 who needed treatment), leaving an estimated 1.3 million youths who needed but did not receive treatment.

- Among the 1.4 million persons who received specialty treatment for an illicit drug problem in the past year, 33.9 percent reported "own savings or earnings" as a source of payment for their most recent specialty treatment (Figure 8.10). An estimated 30.0 percent reported private health insurance, 26.1 percent reported Medicaid, and 23.3 percent reported public assistance other than Medicaid as a source of payment. An estimated 20.3 percent reported Medicare, and 16.2 percent reported family members. (Note that the estimates of treatment by source of payment include persons reporting more than one source.)

Figure 8.10 Source of Payment for Most Recent Specialty Treatment among Persons Aged 12 or Older Who Received Specialty Illicit Drug Treatment in the Past Year: 2002



Alcohol Treatment and Treatment Need

- In 2002, the estimated number of persons aged 12 or older needing treatment for an alcohol problem was 18.6 million (7.9 percent of the total population). Of these, 8.3 percent (1.5 million) received alcohol treatment at a specialty substance abuse facility in the past 12 months (Figure 8.9).

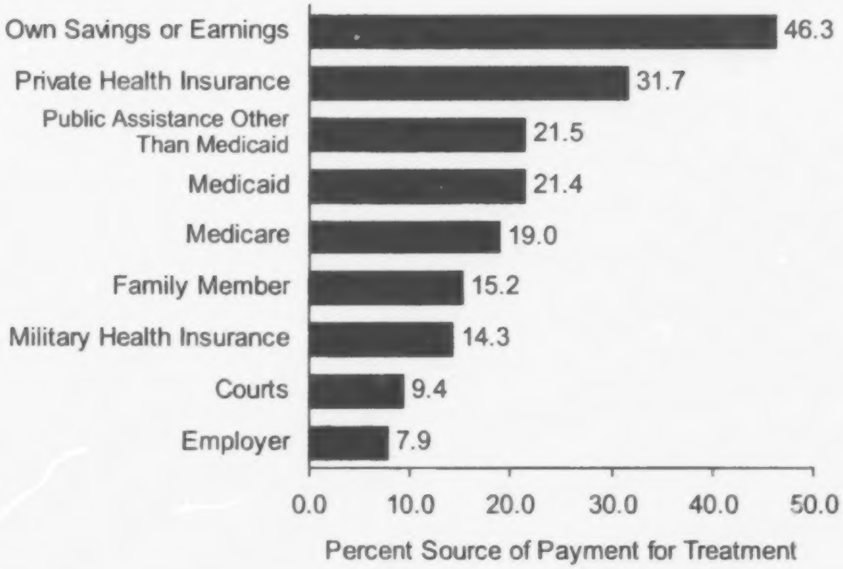
- The estimated number of persons needing treatment for alcohol but who did not receive treatment was 17.1 million people in 2002, or 7.3 percent of the total population aged 12 or older (Figure 8.9).

- Of the 17.1 million people who needed but did not receive alcohol treatment for their alcohol problem in 2002, an estimated 761,000 (4.5 percent) reported that they felt they needed treatment for their alcohol problem. Of the 761,000 persons, 266,000 (35 percent) reported that they made an effort but were unable to get treatment and 495,000 (65 percent) reported making no effort to get treatment.

- There were 1.5 million youths aged 12 to 17 (6.0 percent) who needed treatment for an alcohol problem in 2002. Of this group, only 0.1 million received treatment (8.1 percent of youths aged 12 to 17 who needed treatment), leaving an estimated 1.4 million youths who needed but did not receive treatment.

- Among the 1.5 million persons who received specialty treatment for an alcohol problem in the past year, 46.3 percent reported "own savings or earnings" as a source of payment for their most recent specialty treatment (Figure 8.11). An estimated 31.7 percent reported using private health insurance, 21.5 percent reported public assistance other than Medicaid, and 21.4 percent reported Medicaid. An estimated 19.0 percent reported using Medicare, and 15.2 percent reported family members. (Note that the estimates of treatment by source of payment include persons reporting more than one source of payment.)

Figure 8.11 Source of Payment for Most Recent Specialty Alcohol Treatment among Persons Aged 12 or Older Who Received Specialty Alcohol Treatment in the Past Year: 2002



9. Prevalence and Treatment of Mental Health Problems

This chapter presents national estimates of the prevalence and characteristics of persons aged 18 or older with serious mental illness (SMI) and of persons aged 12 or older who received treatment for mental health problems. The 2002 National Survey on Drug Use and Health (NSDUH) includes a series of questions designed to assess SMI among adults aged 18 or older. The survey also includes questions on mental health treatment and counseling. Separate questions are asked for adults and for youths aged 12 to 17, and different definitions are applied. Both the youth and the adult questions specifically exclude treatment for problems with substance use, which is covered elsewhere in the interview. Because the survey represents the civilian, noninstitutionalized population, persons who reside in long-term psychiatric or other institutions at the time of interview are excluded from the sample and from the estimates presented in this chapter.

9.1 Serious Mental Illness

This section presents national estimates of the prevalence and characteristics of adults who had SMI in 2002. SMI is defined for this report as having at some time during the past year a diagnosable mental, behavioral, or emotional disorder that met the criteria specified in the *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition (DSM-IV) (American Psychiatric Association [APA], 1994) and resulted in functional impairment that substantially interfered with or limited one or more major life activities. A scale consisting of six NSDUH questions is used to measure SMI. These questions ask how frequently a respondent experienced symptoms of psychological distress during the 1 month in the past year when he or she was at his or her worst emotionally. Use of this scale to estimate SMI is supported by methodological research that determined the scale to be a good predictor of SMI, based on clinical assessments done on survey respondents (Kessler et al., 2003). The six questions and further discussion of this scale are given in Section B.5 of Appendix B.

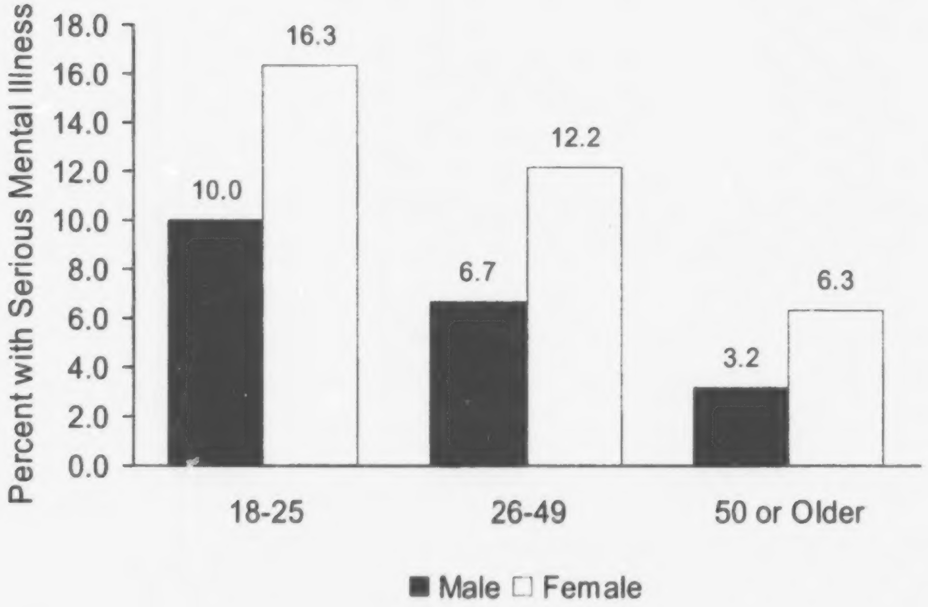
Prevalence of Serious Mental Illness

- In 2002, there were an estimated 17.5 million adults aged 18 or older with SMI. This represents 8.3 percent of all adults.

- Rates of SMI were highest for persons aged 18 to 25 (13.2 percent) and lowest for persons aged 50 or older (4.9 percent).

- Among adults, the percentage of females with SMI was higher than the percentage of males (10.5 vs. 6.0 percent). Rates were higher for women than men in all age groups (Figure 9.1).

Figure 9.1 Rates of Serious Mental Illness among Adults Aged 18 or Older, by Age and Gender: 2002



- Among adults aged 18 or older in 2002, the rate of SMI was highest among persons reporting two or more races (13.6 percent) and American Indian/Alaska Natives (12.5 percent) and lowest among Native Hawaiian or other Pacific Islanders (5.4 percent) (Figure 9.2).

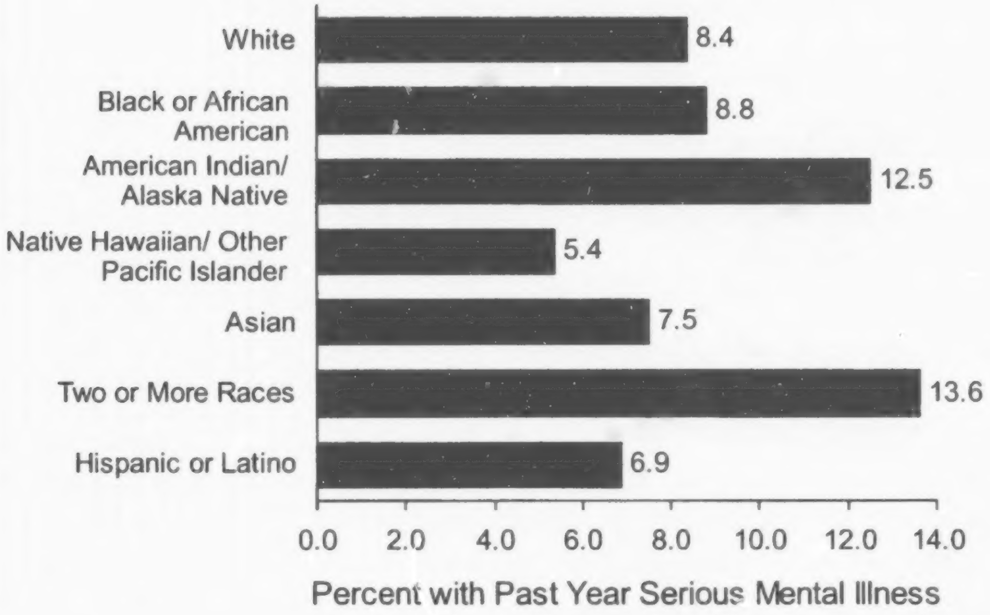
- In 2002, persons who did not complete high school and those with some college had the highest rates of SMI (9.6 and 9.5 percent, respectively). The rate was 8.6 percent among high school graduates. Persons who completed college had the lowest rate of SMI (5.8 percent).

- Rates of SMI in 2002 were highest among unemployed persons (14.2 percent) and lowest among persons employed full time (7.3 percent). The rate among persons employed part time was 9.7 percent. However, among persons aged 26 to 49, the highest rate of SMI was among persons not in the labor force (15.5 percent). Overall, most (63.6 percent) of the adults with SMI were employed.

- Rates of SMI did not vary greatly by geographic region. The rate in 2002 was 8.5 percent in the Northeast and Midwest, 8.4 percent in the South, and 7.8 percent in the West.

- The rate of SMI among adults was higher in nonmetropolitan areas (9.4 percent) than in large metropolitan areas (7.6 percent) or small metropolitan areas (8.8 percent).

Figure 9.2 Past Year Serious Mental Illness among Adults Aged 18 or Older, by Race/Ethnicity: 2002



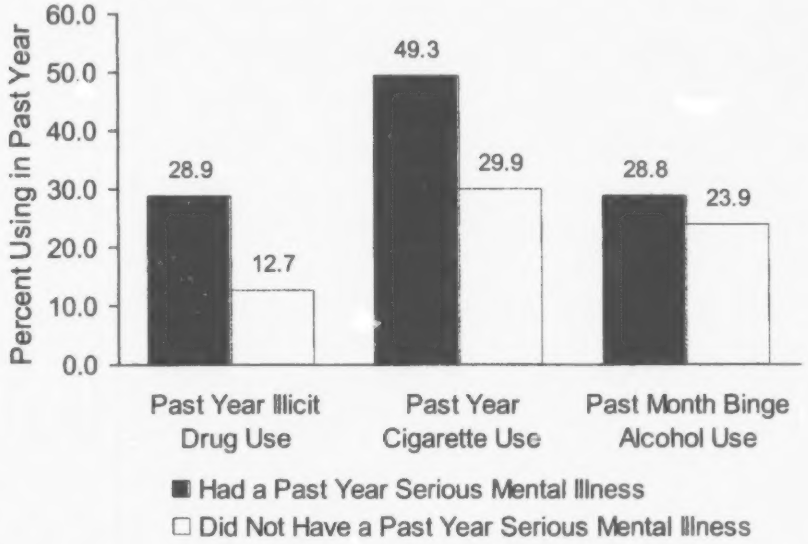
Serious Mental Illness and Substance Use

- Adults who used illicit drugs were more than twice as likely to have SMI as adults who did not use an illicit drug. In 2002, among adults who used an illicit drug in the past year, 17.1 percent had SMI in that year, while the rate was 6.9 percent among adults who did not use an illicit drug. This pattern of higher rates of SMI among illicit drug users was observed within most demographic subgroups.

- Adults with SMI were more than twice as likely as those without SMI to use an illicit drug in the past year. Among persons with SMI, 28.9 percent used an illicit drug in the past year, while the rate was 12.7 percent among those without SMI. Similarly, among adults with SMI, the rate of past year cigarette use was 49.3 percent, while the rate was only 29.9 percent among adults without SMI (Figure 9.3).

- Among adults who were not in the labor force, those with SMI were approximately 3 times as likely to have used illicit drugs in the past year (21.2 percent) as those without SMI (6.9 percent).

Figure 9.3 Substance Use among Adults Aged 18 or Older, by Serious Mental Illness: 2002



- SMI was not strongly correlated with alcohol use. The rate of past year alcohol use among adults with SMI was almost the same as the rate among adults without SMI (71.1 vs. 69.7 percent, respectively, in 2002). However, SMI was correlated with binge alcohol use, defined as drinking five or more drinks on the same occasion on at least 1 day in the past 30 days. Among adults with SMI, 28.8 percent were binge drinkers, while 23.9 percent of adults without SMI were binge drinkers (Figure 9.3).

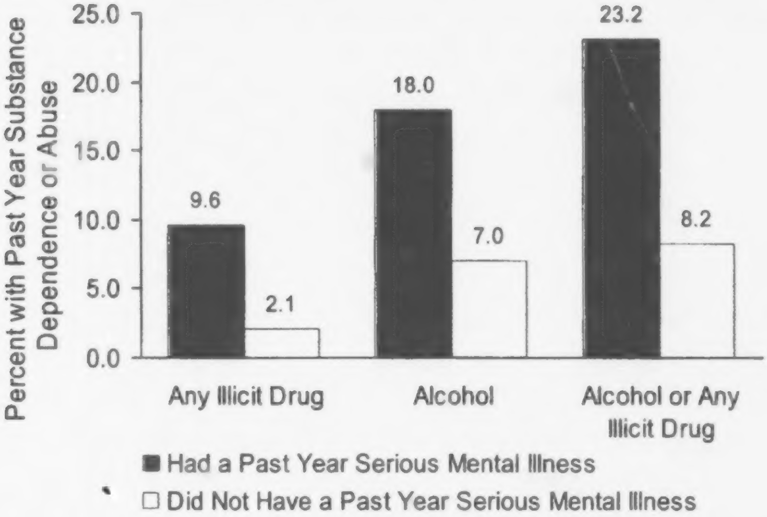
Co-Occurrence of Serious Mental Illness with Substance Dependence/Abuse

- SMI was highly correlated with substance dependence or abuse. Among adults with SMI in 2002, 23.2 percent were dependent on or abused alcohol or illicit drugs, while the rate among adults without SMI was only 8.2 percent. Adults with SMI were more likely than those without SMI to be dependent on or abuse illicit drugs (9.6 vs. 2.1 percent) and more likely to be dependent on or abuse alcohol (18.0 vs. 7.0 percent) (Figure 9.4).

- In 2002, an estimated 4.0 million adults met the criteria for both SMI and substance dependence or abuse in the past year. Of these, an estimated 0.8 million with SMI also were dependent on or abused both alcohol and illicit drugs, 0.9 million with SMI also were dependent on or abused an illicit drug only, and 2.4 million with SMI were dependent on or abused alcohol only.

- Among adults with substance dependence or abuse, 20.4 percent had SMI. The rate of SMI was 7.0 percent among adults who were not dependent on or abusing a substance.

Figure 9.4 Past Year Substance Dependence or Abuse among Adults Aged 18 or Older, by Serious Mental Illness: 2002



- Among persons with SMI in different gender and age categories, men aged 18 to 25 with SMI had the highest rate of illicit drug dependence or abuse (22.0 percent), as well as the highest rate of alcohol dependence or abuse (34.8 percent).

Serious Mental Illness among Adults on Probation or Parole

- The rate of SMI was higher among adults who were on probation during the past year than among those who were not on probation (16.3 vs. 8.1 percent).
- The rate of SMI was higher for adults who were on parole or supervised release (20.8 percent) than among those not on parole or supervised release (8.2 percent).

9.2 Mental Health Treatment and Unmet Need for Treatment among Adults

This section presents national estimates of the prevalence and characteristics of adults aged 18 or older who received mental health treatment in 2002. Estimates are presented for the total adult population and separately for the adult population with SMI. Treatment is defined as the receipt of treatment or counseling for any problem with emotions, "nerves," or mental health in the 12 months prior to the interview in any inpatient or outpatient setting; it also includes the use of prescription medication for treatment of a mental or emotional condition. Treatment for only a substance abuse problem is not included. Unmet need is defined as a perceived need for mental health treatment at any time in the 12 months prior to the interview that was not received.

- In 2002, an estimated 27.3 million adults received mental health treatment in the 12 months prior to the interview. This estimate represents 13.0 percent of the population 18 years old or older (Figure 9.5).

- The most prevalent type of treatment in the adult population in 2002 was prescription medication (10.5 percent), followed by outpatient treatment (7.4 percent).

- In 2002, an estimated 1.5 million adults (0.7 percent) were hospitalized for mental health problems at some time within the past 12 months.

- Rates of mental health treatment among adults varied by age, with the highest rate among adults aged 26 to 49 (14.6 percent). Rates were 10.6 percent for persons aged 18 to 25 years and 12.0 percent among those aged 50 or older.

- In 2002, female adults were more likely than males to receive treatment (17.0 vs. 8.7 percent). There was no gender difference in the rates of inpatient treatment (0.7 percent for males and 0.7 percent for females).

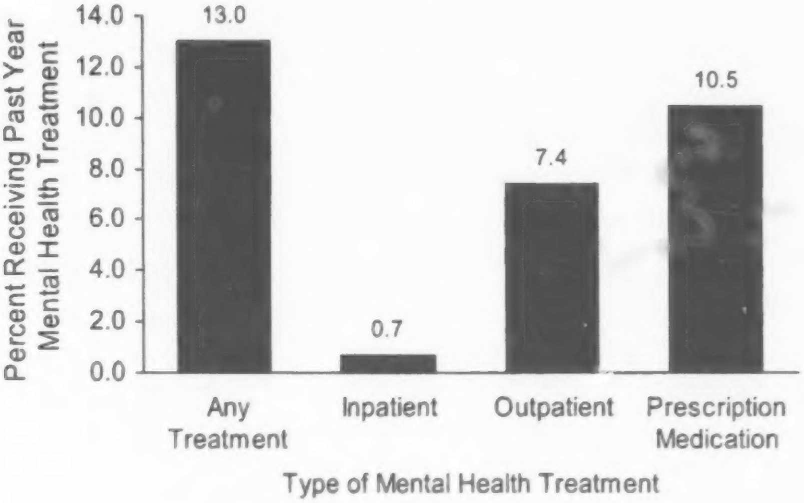
- Among racial/ethnic groups, the rates of mental health treatment for adults in 2002 were highest for American Indian/Alaska Natives (17.8 percent) and those reporting two or more races (16.6 percent); the rates were next highest for whites (14.7 percent) and lower for all other groups (8.5 percent for blacks, 8.5 percent for Asians, 8.2 for Hispanics, and 3.9 percent for Native Hawaiians or other Pacific Islanders).

- The overall rate of mental health treatment was lowest for adults with less than a high school education and high school graduates (11.7 percent for both groups) and highest for those with some college and college graduates (14.3 and 14.4 percent, respectively). There also were variations by type of treatment. Adults who had not completed high school were more likely than adults with some college or college graduates to have received inpatient mental health treatment in 2002 (1.6 vs. 0.4 percent). This pattern was reversed for outpatient treatment (9.6 percent of college graduates vs. 5.5 percent of persons who had not completed high school). Adults who had not completed high school were less likely (9.4 percent) than those with some college (11.6 percent) to have received prescription medication.

- Among current employment status categories, adults who were employed full time had the lowest rates of mental health treatment, at 11.3 percent, compared with 14.2 percent for part-time employees and unemployed persons and 15.8 percent for adults who were not in the labor force. Adults not in the labor force were more likely than full-time employed persons to have received inpatient mental health treatment (1.3 vs. 0.3 percent), to have received outpatient treatment (8.4 vs. 6.5 percent), and to have taken prescription medication (13.7 vs. 8.6 percent).

- There was little variation in rates of treatment by region or type of county. Rates were 13.8 percent in the Northeast, 13.0 percent in the Midwest, 12.3 percent in the South, and 13.4 percent in the West. By county type, rates were 12.3 percent in large metropolitan areas, 14.1 percent in small metropolitan areas, and 13.1 percent in nonmetropolitan areas. In completely rural areas, the rate was 9.6 percent.

Figure 9.5 Past Year Mental Health Treatment among Adults Aged 18 or Older, by Type of Treatment: 2002



- In 2002, adults with an annual family income of less than $20,000 were more likely to have received treatment for mental health problems (15.4 percent) than were those with incomes of $20,000 to $49,999 (12.2 percent), those with incomes of $50,000 to $74,999 (12.9 percent), and those with incomes of $75,000 or more (12.4 percent).

- Adults in families receiving government assistance were more likely to receive mental health treatment in 2002 (18.8 percent) than adults in unassisted families (12.2 percent). Adults in assisted families also were more likely than those in unassisted families to receive outpatient treatment or prescription medication and more likely to have received inpatient mental health treatment.

- In 2002, 5.4 percent of the adult population (11.3 million people) perceived an unmet need for mental health treatment in the 12 months prior to their interview. Among those who did not receive treatment, 3.3 percent perceived an unmet need, while the rate of perceived unmet need was 19.3 percent among those who did receive treatment. Unmet need among those who received treatment may be interpreted as delayed or insufficient treatment in the 12 months prior to the interview.

- Among adults who perceived an unmet need for mental health treatment in the past year, the five most often reported reasons were "could not afford the cost" (38.2 percent), "did not know where to go for services" (17.9 percent), "concerned about confidentiality" (11.8 percent), "health insurance does not pay enough for mental health treatment/counseling" (11.2 percent), and "might cause neighbors/community to have negative opinion" (11.2 percent).

Treatment and Unmet Need for Treatment among Adults with Serious Mental Illness

- Among the 17.5 million adults with SMI in 2002, 8.4 million (47.9 percent) received treatment for a mental health problem in the 12 months prior to the interview.
- The likelihood of receiving treatment among adults with SMI varied by age. More than half of adults aged 26 to 49 with SMI received treatment (54.4 percent), while 46.4 percent of those aged 50 or older and 34.2 percent of those aged 18 to 25 received treatment.
- Females with SMI were more likely than males with SMI to have received mental health treatment in the past year (52.3 vs. 39.5 percent).
- Rates of treatment for a mental health problem among persons with SMI did not vary greatly by geographic region. Rates by region were 50.7 percent in the Northeast, 47.5 percent in the Midwest and South, and 46.3 percent in the West.
- By county type, rates of treatment for a mental health problem among persons with SMI were highest for small metropolitan areas (52.0 percent); they were similar for large metropolitan areas (46.1 percent) and nonmetropolitan areas (45.7 percent).
- Among adults with SMI, 30.5 percent perceived an unmet need for mental health treatment in the 12 months prior to their interview. The same pattern of perceived unmet need was seen in the SMI population as in the overall population; that is, the rate of perceived unmet need among persons with SMI was higher among those who did receive treatment (37.8 percent) than among those who did not receive any treatment (23.8 percent).
- Adults with SMI who perceived an unmet need for mental health treatment in the past 12 months reported the same five most common reasons for not getting needed treatment that were reported by all adults with any unmet need: "could not afford the cost" (44.3 percent), "did not know where to go for services" (20.5 percent), "concerned about confidentiality" (13.4 percent), "health insurance does not pay enough for mental health treatment/counseling" (12.8 percent), and "might cause neighbors/community to have negative opinion" (12.3 percent).

9.3 Mental Health Treatment among Youths

This section presents national estimates of the receipt of mental health treatment or counseling among youths aged 12 to 17. Data on reasons for last treatment visit and sources or locations of past year treatment also are discussed. Mental health treatment for youths is defined as receiving treatment or counseling for emotional or behavioral problems from specific mental health or other health professionals in school, home, outpatient, or inpatient settings within the 12 months prior to the interview. Treatment for only a substance abuse problem is not included.

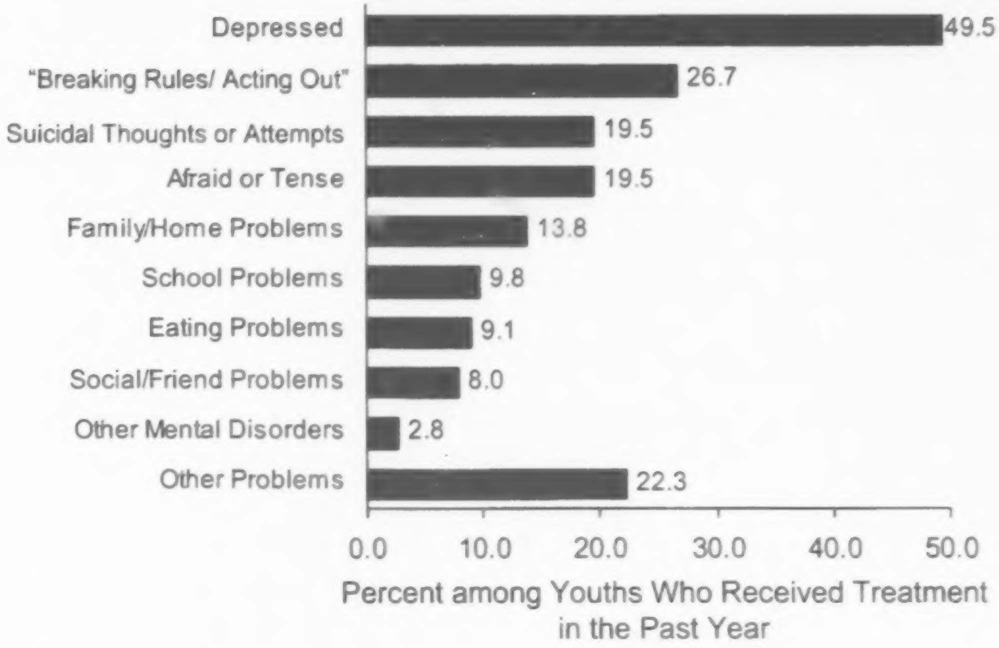
- In 2002, an estimated 4.8 million youths aged 12 to 17 received treatment or counseling for emotional or behavior problems in the year prior to the interview. This represents 19.3 percent of this population.

- Among the 4.8 million youths receiving mental health treatment in 2002, the most commonly reported sources were private therapists, psychologists, psychiatrists, social workers, or counselors (47.6 percent), followed by school counselors, school psychologists, or teachers (44.6 percent).

- Youths aged 12 or 13 were more likely to receive treatment from school counselors or school psychologists or by having regular meetings with a teacher, and youths aged 16 or 17 were more likely to receive treatment from private therapists, psychologists, psychiatrists, social workers, or counselors. In 2002, 422,000 youths, or 8.9 percent of those receiving treatment, were hospitalized for mental health treatment. Among youths receiving treatment, the rate of hospitalization was highest for youths aged 16 or 17 (11.7 percent).

- The reason cited most often for receiving mental health treatment was "felt depressed" (49.5 percent of youths receiving treatment), followed by "breaking rules or acting out" (26.7 percent), "thought about killing self or tried to kill self" (19.5 percent), and "felt very afraid or tense" (19.5 percent) (Figure 9.6).

Figure 9.6 Reasons for Mental Health Treatment in the Past Year among Youths Aged 12 to 17: 2002



- There was little variation by age group in the overall rates of treatment among youths (19.8 percent of those aged 12 or 13, 19.9 percent of those aged 14 or 15, and 18.2 percent of those aged 16 or 17).

- Females aged 12 to 17 were slightly more likely than males to have received mental health treatment or counseling in 2002 (20.7 vs. 18.0 percent).

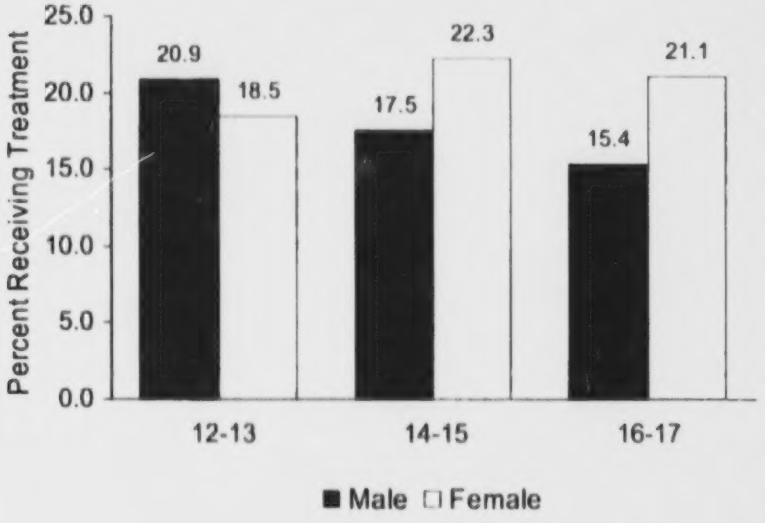
- Among youths aged 12 or 13, boys were slightly more likely than girls to have received mental health treatment or counseling (20.9 vs. 18.5 percent). However, among youths aged 14 or 15 and 16 or 17, girls had significantly higher rates of treatment than boys (Figure 9.7).

- Asian youths were less likely than all other racial/ethnic groups to have received mental health services in 2002 (13.4 vs. 20.7 percent of youths reporting two or more races, 20.1 percent of whites, 19.3 percent of blacks, and 17.5 percent of Hispanics).

- Youths in families with incomes of less than $20,000 were slightly more likely to have received mental health treatment in 2002 (21.8 percent) than those in families with higher incomes. Treatment rates in other income groups were 19.1 percent of those with incomes of $20,000 to $49,999, 18.1 percent of those with incomes of $50,000 to $74,999, and 18.9 percent of those with incomes of $75,000 or more.

- Youths in families receiving government assistance were more likely than those in unassisted families to have received mental health treatment in 2002 (23.5 vs. 18.5 percent).

Figure 9.7 Past Year Mental Health Treatment among Youths Aged 12 to 17, by Age and Gender: 2002



- In 2002, youths in the West had somewhat lower rates of mental health treatment (18.0 percent) than those in other regions (18.9 percent of those living in the South, 19.6 percent of those in the Midwest, and 21.4 percent of those in the Northeast). By county type, youths had the following rates of treatment: those living in nonmetropolitan areas, 17.9 percent; those in small metropolitan areas, 19.5 percent; and those in large metropolitan areas, 19.8 percent.

- The rate of mental health treatment among youths who used illicit drugs in the past year (26.7 percent) was higher than the rate among youths who did not use illicit drugs (17.2 percent).

10. Discussion

This report presents findings from the 2002 National Survey on Drug Use and Health (NSDUH). Conducted since 1971 and previously named the National Household Survey on Drug Abuse (NHSDA), the survey underwent several methodological improvements in 2002 that have affected prevalence estimates. As a result, the 2002 estimates are not comparable with estimates from 2001 and earlier surveys. The primary focus of the report is on the numbers of persons and rates for a variety of measures related to substance use and mental health in 2002, including comparisons across sociodemographic and geographic subgroups of the U.S. population. Some of the most important findings for 2002 are presented in the Highlights section of this report.

The prevalence estimates from the 2002 NSDUH are uniformly higher than the corresponding estimates from the 2001 NHSDA. Analyses to date of the effects of the methodological changes in 2002 (see Appendix C) indicate that the higher prevalences in 2002 mostly reflect an increase in the reporting of these behaviors by survey respondents due to the $30 incentive payment and other survey improvements, not actual increases in the prevalence of these behaviors and problems. The results of these analyses were presented to a panel of survey methodology experts, who concluded that 2002 estimates should not be compared with 2001 and earlier estimates. The panel also concluded that it would not be possible to develop a method of "adjusting" pre-2002 data to make them comparable for trend assessment.

Although traditional comparisons of estimates across years cannot be used to examine recent trends, it is possible to study trends by constructing "retrospective" estimates of lifetime prevalence and incidence produced from the 2002 NSDUH data alone (see Chapters 5 and 6). These trends can be compared with the results from Monitoring the Future (MTF), a study sponsored by the National Institute on Drug Abuse (NIDA). Figure 10.1 shows the trends in lifetime marijuana use based on the 2002 NSDUH retrospective estimates for youths aged 16 to 20, as well as trends in lifetime marijuana use and past month marijuana use among the MTF 12th graders. The two data sources produce similar trends in lifetime prevalence, and the MTF trend in past month use also is similar to the trend for lifetime use. These trends also are consistent with trends for youths aged 12 to 17 and young adults aged 18 to 25 discussed in Chapter 5. They show very low rates of illicit drug use in the mid-1960s. In 1965, only 1.8 percent of youths had ever used marijuana. There were dramatic increases in use during the late 1960s and 1970s, and by 1979, 19.6 percent of youths had ever used marijuana. After that, use declined until 1991, when 11.5 percent of youths had ever used marijuana. The trend reversed during the 1990s, reaching 21.9 percent in 2001 before dropping slightly in 2002 to 20.6 percent.

Retrospective estimates based on 2002 NSDUH data are presented in Table 10.1 for selected substances along with related estimates from the 2002 MTF for youths and young adults. The NSDUH data show decreases from 2001 to 2002 in lifetime use of marijuana, LSD, and cigarettes among youths, but an increase for cocaine among youths. For young adults aged 18 to 25 during this time period, there was a slight increase in lifetime cocaine and Ecstasy use and a decrease in lifetime LSD use. These NSDUH results are generally consistent with MTF trends, with a few exceptions. MTF shows no change in lifetime cocaine use among youths, and it shows decreases in youth Ecstasy and alcohol use not found in the NSDUH estimates.

Estimates of incidence, or first-time use, also suggest that illicit drug use prevalence had been very low during the early 1960s, but began to increase during the mid-1960s as substantial numbers of young people initiated the use of marijuana. As discussed in Chapter 6, annual marijuana incidence increased from about 0.8 million new users in 1965 until it reached a peak of 3.5 million initiates per year during 1973 to 1978, just before the prevalence rates peaked. Interestingly, the annual number of marijuana initiates reached a low point in 1990 (1.6 million), then increased, 2 years before the increase in youth prevalence occurred. This finding demonstrates the value of analyzing the incidence data and using it to forecast future trends in prevalence. Assuming this relationship between incidence and prevalence continues to hold, the continuing high levels (between 2.5 and 3.0 million initiates per year) of marijuana incidence between 1995 and 2001 indicate that substantial declines in youth prevalence may not occur in the near future. However, the NSDUH incidence estimates for youths under age 18 indicate a decline from 2000 to 2001 (from 2.1 million to 1.7 million), which suggests that youth prevalence may decline. The NSDUH youth lifetime prevalence and MTF past month prevalence estimates do show decreases from 2001 to 2002. High rates of marijuana initiation during the 1970s among the cohort identified as the "baby boomers" have resulted in an increase in the numbers needing treatment for substance abuse problems. The increase in marijuana initiation rates during the 1990s may have the same result.

Figure 10.1 Marijuana Use among NSDUH Youths Aged 16 to 20 and MTF 12th Graders: 1975-2002

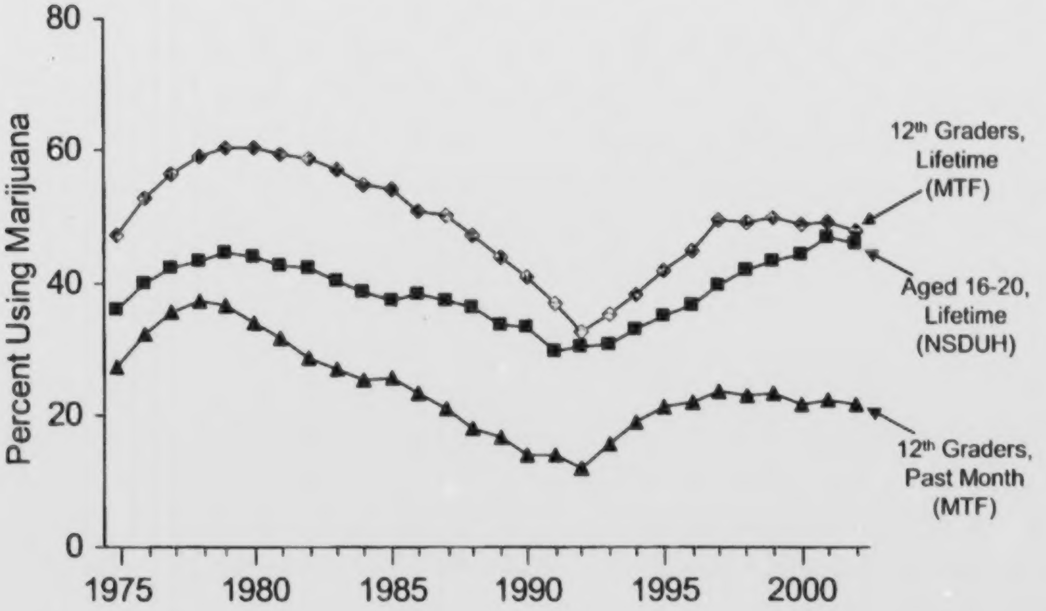


Table 10.1 Comparison of NSDUH and MTF Prevalence Rates

	NSDUH 12-17		MTF 8th and 10th		NSDUH 18-25		MTF 19-24	
	2001	**2002**	**2001**	**2002**	**2001**	**2002**	**2001**	**2002**
Marijuana								
Lifetime	21.9	20.6	30.3	29.0	53.0	53.8	56.3	56.1
Past Month	--	8.2	14.5	13.1	--	17.3	19.6	19.8
Cocaine								
Lifetime	2.3	2.7	5.0	4.9	14.9	15.4	12.4	12.9
Past Month	--	0.6	1.3	1.4	--	2.0	2.5	2.5
Ecstasy								
Lifetime	3.2	3.3	6.6	5.5	13.5	15.1	15.0	16.0
Past Month	--	0.5	2.2	1.6	--	1.1	2.2	1.6
LSD								
Lifetime	3.3	2.7	4.9	3.8	16.6	15.9	15.2	13.9
Past Month	--	0.2	1.3	0.7	--	0.1	1.0	0.4
Alcohol								
Lifetime	43.3	43.4	60.3	57.0	85.5	86.7	88.1	88.4
Past Month	--	17.6	30.3	27.5	--	60.5	67.1	67.7
Cigarettes								
Lifetime	37.3	33.3	44.7	39.4	71.3	71.2	--	--
Past Month	--	13.0	16.8	14.2	--	40.8	32.6	31.4

-- Not available.

Note: NSDUH data in this table are retrospective estimates from the 2002 data. MTF data for 8th and 10th graders are simple averages of estimates for those two grades reported in Johnston, O'Malley, and Bachman (2003b). MTF data for youths aged 19 to 24 are simple averages of estimates for youths aged 19-20, 21-22, and 23-24 reported in Johnston et al. (2003c).

Sources: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.
The Monitoring the Future Study, University of Michigan, 2001 and 2002.

Appendix A: Description of the Survey

A.1 Sample Design

The 2002 National Survey on Drug Use and Health (NSDUH) sample design was part of a coordinated 5-year sample design that will provide estimates for all 50 States plus the District of Columbia for the years 1999 through 2003. The coordinated design facilitates 50 percent overlap in first-stage units (area segments) between each 2 successive years.

For the 5-year 50-State design, 8 States were designated as large sample States (California, Florida, Illinois, Michigan, New York, Ohio, Pennsylvania, and Texas) with samples large enough to support direct State estimates. Sample sizes in these States ranged from 3,554 to 3,792. For the remaining 42 States and the District of Columbia, smaller, but adequate, samples were selected to support State estimates using small area estimation (SAE) techniques. Sample sizes in these States ranged from 674[1] to 977 in 2002.

States were first stratified into a total of 900 field interviewer (FI) regions (48 regions in each large sample State and 12 regions in each small sample State). These regions were contiguous geographic areas designed to yield the same number of interviews on average. Within FI regions, adjacent census blocks were combined to form the first-stage sampling units, called area segments. A total of 96 segments per FI region were selected with probability proportional to population size in order to support the 5-year sample and any supplemental studies that the Substance Abuse and Mental Health Services Administration (SAMHSA) may choose to field.[2] Eight sample segments per FI region were fielded during the 2002 survey year.

These sampled segments were allocated equally into four separate samples, one for each 3-month period during the year, so that the survey is essentially continuous in the field. In each of these area segments, a listing of all addresses was made, from which a sample of 178,013 addresses was selected. Of the selected addresses, 150,162 were determined to be eligible sample units. In these sample units (which can be either households or units within group quarters), sample persons were randomly selected using an automated screening procedure programmed in a handheld computer carried by the interviewers. The number of sample units completing the screening was 136,349. Youths (aged 12 to 17 years) and young adults (aged 18 to 25 years) were oversampled at this stage. Because of the large sample size associated with this sample, there was no need to oversample racial/ethnic groups, as was done on NHSDAs[3] prior to 1999. A total of 80,581 persons were selected nationwide. Consistent with previous NHSDAs, the final respondent sample of 68,126 persons was representative of the U.S. general population (since 1991, the civilian, noninstitutionalized population) aged 12 or older. In addition, State samples were representative of their respective State populations. More detailed information on the disposition of the national screening and interview sample can be found in Appendix B. Also, additional tables showing sample sizes and estimated population counts for various demographic and geographic subgroups are presented in Appendix G. Definitions of key terms are provided in Appendix D.

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[1] Small area estimation (SAE) is a hierarchical Bayes modeling technique used to make State-level estimates for approximately 20 substance use-related measures. See the *State Estimates of Substance Use from the 2001 National Household Survey on Drug Abuse* (Wright, 2003a, 2003b) for more details.

[2] For more details on the 5-year sample, see the sample design report in the *2001 NHSDA Methodological Resource Book* (Bowman, Chromy, Odom, & Penne, 2003).

[3] This small sample size was achieved in New Mexico following the decision to drop cases conducted by several interviewers in this State, Nevada, and Mississippi who were accused of completing fraudulent work. The next two smallest sample sizes were achieved in Mississippi and New Jersey with 839 and 854 completed cases, respectively.

The survey covers residents of households (living in houses/townhouses, apartments, condominiums, etc.), noninstitutional group quarters (e.g., shelters, rooming/boarding houses, college dormitories, migratory workers' camps, halfway houses), and civilians living on military bases. Although the survey covers these types of units (they are given a nonzero probability of selection), sample sizes of most specific groups are too small to provide separate estimates. Persons excluded from the survey include homeless people who do not use shelters, active military personnel, and residents of institutional group quarters, such as correctional facilities, nursing homes, mental institutions, and long-term hospitals.

A.2 Data Collection Methodology

The data collection method used in NSDUH involves in-person interviews with sample persons, incorporating procedures that would be likely to increase respondents' cooperation and willingness to report honestly about their illicit drug use behavior. Confidentiality is stressed in all written and oral communications with potential respondents, respondents' names are not collected with the data, and computer-assisted interviewing (CAI) methods, including audio computer-assisted self-interviewing (ACASI), are used to provide a private and confidential setting to complete the interview.

Introductory letters are sent to sampled addresses, followed by an interviewer visit. A 5-minute screening procedure conducted using a handheld computer involves listing all household members along with their basic demographic data. The computer uses the demographic data in a preprogrammed selection algorithm to select zero to two sample person(s), depending on the composition of the household. This selection process is designed to provide the necessary sample sizes for the specified population age groupings.

Interviewers attempt to immediately conduct the NSDUH interview with each selected person in the household. The interviewer requests the selected respondent to identify a private area in the home away from other household members to conduct the interview. The interview averages about an hour and includes a combination of CAPI (computer-assisted personal interviewing) and ACASI. The interview begins in CAPI mode with the FI reading the questions from the computer screen and entering the respondent's replies into the computer. The interview then transitions to the ACASI mode for the sensitive questions. In this mode, the respondent can read the questions silently on the computer screen and/or listen to the questions read through headphones and enter his or her responses directly into the computer. At the conclusion of the ACASI section, the interview returns to the CAPI mode with the interviewer completing the questionnaire. Each respondent that completes a full interview is given a $30.00 cash payment as a token of appreciation for their time.

No personal identifying information is captured in the CAI record for the respondent. At the end of the day when an interviewer has completed one or more interviews, he or she transmits the data to RTI in Research Triangle Park, North Carolina, via home telephone lines.

A.3 Data Processing

Interviewers initiate nightly data transmissions of interview data and call records on days when they work. Computers at RTI direct the information to a raw data file that consists of one record for each completed interview. Even though editing and consistency checks are done by the CAI program during the interview, additional more complex edits and consistency checks are completed at RTI. Cases are retained only if respondents provided data on lifetime use of cigarettes and at least nine other substances. An important aspect of subsequent editing routines involves assignment of codes when respondents legitimately skipped out of questions that definitely did not apply to them (e.g., if respondents never used a drug of interest). For key drug use measures, the editing procedures identify inconsistencies between related variables. Inconsistencies in variables pertaining to the most recent period that respondents used a drug are edited by assigning an "indefinite" period of use (e.g., use at some point in the lifetime, which could mean use in the past 30 days or past 12 months). Inconsistencies in other key drug use variables are edited by assigning missing data codes. These inconsistencies then are resolved through statistical imputation procedures, as discussed below.

A.3.1 Statistical Imputation

For some key variables that still have missing or ambiguous values after editing, statistical imputation is used to replace ambiguous or missing data with appropriate response codes. For example, the response is ambiguous if the editing procedures assigned a respondent's most recent use of a drug to "use at some point in the lifetime," with no definite period within the lifetime. In this case, the imputation procedures assign a definite value for when the respondent last used the drug (e.g., in the past 30 days, more than 30 days ago but within the past 12 months, more than 12 months ago). Similarly, if the response is completely missing, the imputation procedures replace missing values with nonmissing ones.

Missing or ambiguous values are imputed using a methodology called predictive mean neighborhoods (PMN), which was developed specifically for the NHSDA in 1999. PMN is a combination of a model-assisted imputation methodology and a random nearest neighbor hot-deck procedure. Whenever feasible, the imputation of variables using PMN is multivariate, in which imputation is accomplished on several response variables at once. Variables requiring imputation were the core demographic variables, core drug use variables (recency of use, frequency of use, and age at first use), income, health insurance, and a variety of roster-derived variables.

In the modeling stage of PMN, the model chosen depends on the nature of the response variable *Y*. In the 2002 NSDUH, the models included binomial logistic regression, multinomial logistic regression, Poisson regression, and ordinary linear regression, where the models incorporate the design weights.

In general, hot-deck imputation replaces a missing or ambiguous value taken from a "similar" respondent who has complete data. For random nearest neighbor hot-deck imputation, the missing or ambiguous value is replaced by a responding value from a donor randomly selected from a set of potential donors. Potential donors are those defined to be "close" to the unit with the missing or ambiguous value, according to a predefined function, called a distance metric. In the hot-deck stage of PMN, the set of candidate donors (the "neighborhood") consists of respondents with complete data who have a predicted mean close to that of the item nonrespondent. In particular, the neighborhood consists of either the set of the closest 30 respondents, or the set of respondents with a predicted mean (or means) within 5 percent of the predicted mean(s) of the item nonrespondent, whichever set is smaller. If no respondents are available who have a predicted mean (or means) within 5 percent of the item nonrespondent, the respondent with the predicted mean(s) closest to that of the item nonrespondent is selected as the donor.

In the univariate case, the neighborhood of potential donors is determined by calculating the relative distance between the predicted mean for an item nonrespondent and the predicted mean for each potential donor, then choosing those means defined by the distance metric. The pool of donors is further restricted to satisfy logical constraints whenever necessary (e.g., age at first crack use must not be younger than age at first cocaine use).

Whenever possible, missing or ambiguous values for more than one response variable are considered at a time. In this (multivariate) case, the distance metric is a Mahalanobis distance rather than a relative Euclidean distance. Whether the imputation is univariate or multivariate, only missing or ambiguous values are replaced, and donors are restricted to be logically consistent with the response variables that are not missing. Furthermore, donors are restricted to satisfy "likeness constraints" whenever possible. That is, donors are required to have the same values for variables highly correlated with the response. If no donors are available that meet these conditions, these likeness constraints can be loosened. For example, donors for the age at first use variable are required to be of the same age as recipients, if at all possible. Further details on the PMN methodology are provided in RTI (2003) and Singh, Grau, and Folsom (2001, 2002).

Although statistical imputation could not proceed separately within each State due to insufficient pools of donors, information about each respondent's State of residence was incorporated in the modeling and hot-deck steps. For most drugs, respondents were separated into three "State usage" categories as follows: respondents from States with high usage of a given drug were placed in one category, respondents from States with medium usage into another, and the remainder into a third category. This categorical "State rank" variable was used as one set of covariates in the imputation models. In addition, eligible donors for each item nonrespondent were restricted to be of the same State usage category (i.e., the same "State rank") as the nonrespondent.

A.3.2 Development of Analysis Weights

The general approach to developing and calibrating analysis weights involved developing design-based weights, d_k, as the inverse of the selection probabilities of the households and persons. Adjustment factors, $a_k(\lambda)$, then were applied to the design-based weights to adjust for nonresponse, to poststratify to known population control totals, and to control for extreme weights when necessary. In view of the importance of State-level estimates with the 50-State design, it was necessary to control for a much larger number of known population totals. Several other modifications to the general weight adjustment strategy that had been used in past NHSDAs also were implemented for the first time beginning with the 1999 CAI sample.

Weight adjustments were based on a generalization of Deville and Särndal's (1992) logit model. This generalized exponential model (GEM) (Folsom & Singh, 2000b) incorporates unit-specific bounds (ℓ_k, u_k), $k \in s$, for the adjustment factor $a_k(\lambda)$ as follows:

$$a_k(\lambda) = \frac{\ell_k(u_k - c_k) + u_k(c_k - \ell_k)\exp(A_k x_k' \lambda)}{(u_k - c_k) + (c_k - \ell_k)\exp(A_k x_k' \lambda)} \quad ,$$

where c_k are prespecified centering constants, such that $\ell_k < c_k < u_k$ and $A_k = (u_k - \ell_k) / (u_k - c_k)(c_k - \ell_k)$. The variables ℓ_k, c_k, and u_k are user-specified bounds, and λ is the column vector of p model parameters corresponding to the p covariates x. The λ-parameters are estimated by solving

$$\sum\nolimits_s x_k d_k a_k(\lambda) - \tilde{T}_x = 0,$$

where $\tilde{T}_x$ denotes control totals that could be either nonrandom, as is generally the case with poststratification, or random, as is generally the case for nonresponse adjustment.

The final weights $w_k = d_k a_k(\lambda)$ minimize the distance function $\Delta(w,d)$ defined as

$$\Delta(w,d) = \sum_{k \in s} \frac{d_k}{A_k} \left\{ (a_k - \ell_k)\log\frac{a_k - \ell_k}{c_k - \ell_k} + (u_k - a_k)\log\frac{u_k - u_k}{u_k - c_k} \right\} .$$

This general approach was used at several stages of the weight adjustment process, including (1) adjustment of household weights for nonresponse at the screener level, (2) poststratification of household weights to meet population controls for various demographic groups by State, (3) adjustment of household weights for extremes, (4) poststratification of selected person weights, (5) adjustment of person weights for nonresponse at the questionnaire level, (6) poststratification of person weights, and (7) adjustment of person weights for extremes.

Every effort was made to include as many relevant State-specific covariates (typically defined by demographic domains within States) as possible in the multivariate models used to calibrate the weights (nonresponse adjustment and poststratification steps). Because further subdivision of State samples by demographic covariates often produced small cell sample sizes, it was not possible to retain all State-specific covariates (even after meaningful collapsing of covariate categories) and still estimate the necessary model parameters with reasonable precision. Therefore, a hierarchical structure was used in grouping States with covariates defined at the national level, at the census division level within the Nation, at the State-group within census division, and, whenever possible, at the State level. In every case, the controls for total population within State and the six age groups (12-17, 18-25, 26-34, 35-49, 50-64, 65+) within State were maintained. Census control totals by age, race, gender, and Hispanicity were required for the civilian, noninstitutionalized population of each State. The Population Estimates Branch of the U.S. Bureau of the Census produced the necessary population estimates, in response to a special request based on the 2000 census. It may be noted that the 2001 population estimates were based on the 1990 census. The impact of this shift to updated census estimates is discussed in Appendix C. It also may be noted that because of the additional multiple race category in the 2000 census, it was possible to include an extra level for the race variable used in weight calibration both at the household and person levels.

Consistent with the surveys from 1999 onward, control of extreme weights through separate bounds for adjustment factors was incorporated into the GEM calibration processes for both nonresponse and poststratification. This is unlike the traditional method of winsorization in which extreme weights are truncated at prespecified levels and the trimmed portions of weights are distributed to the nontruncated cases. In GEM, it is possible to set bounds around the prespecified levels for extreme weights, and then the calibration process provides an objective way of deciding the extent of adjustment (or truncation) within the specified bounds. A step was added to poststratify the household-level weights to obtain census-consistent estimates based on the household rosters from all screened households; these household roster-based estimates then provided the control totals needed to calibrate the respondent pair weights for subsequent planned analyses. An additional step poststratified the selected person sample to conform with the adjusted roster estimates. This additional step takes advantage of the inherent two-phase nature of the NSDUH design. The final step poststratified the respondent person sample to external census data (defined within State whenever possible as discussed above). For more detailed information, see the *2001 NHSDA Methodological Resource Book* (RTI, 2003).

Appendix B: Statistical Methods and Limitations of the Data

B.1 Target Population

An important limitation of estimates of drug use prevalence from the National Survey on Drug Use and Health (NSDUH) is that they are only designed to describe the target population of the survey—the civilian, noninstitutionalized population aged 12 or older. Although this population includes almost 98 percent of the total U.S. population aged 12 or older, it excludes some important and unique subpopulations who may have very different drug use patterns. For example, the survey excludes active military personnel, who have been shown to have significantly lower rates of illicit drug use. Persons living in institutional group quarters, such as prisons and residential drug treatment centers, are not included in NSDUH and have been shown in other surveys to have higher rates of illicit drug use. Also excluded are homeless persons not living in a shelter on the survey date, another population shown to have higher than average rates of illicit drug use. Appendix E describes other surveys that provide data for these populations.

B.2 Sampling Error and Statistical Significance

The national estimates, along with the associated variance components, were computed using a multiprocedure package, SUrvey DAta ANalysis (SUDAAN®) Software for Statistical Analysis of Correlated Data, which was designed for the statistical analysis of sample survey data from stratified, multistage cluster samples (RTI, 2001). The final, nonresponse-adjusted, and poststratified analysis weights were used to compute unbiased design-based drug use estimates.

The sampling error (i.e., the standard error [SE]) of an estimate is the error caused by the selection of a sample instead of conducting a census of the population. Sampling error is reduced by selecting a large sample and by using efficient sample design and estimation strategies, such as stratification, optimal allocation, and ratio estimation.

With the use of probability sampling methods in NSDUH, it is possible to develop estimates of sampling error from the survey data. These estimates have been calculated in SUDAAN for all estimates presented in this report using a Taylor series linearization approach that takes into account the effects of the complex NSDUH design features. The sampling errors are used to identify unreliable estimates and to test for the statistical significance of differences between estimates.

B.2.1 Variance Estimation for Totals

Estimates of proportions, $\hat{p}_d$, such as drug use prevalence rates, take the form of nonlinear statistics where the variances cannot be expressed in closed form. Variance estimation for nonlinear statistics in SUDAAN is performed using a first-order Taylor series approximation of the deviations of estimates from their expected values.

Corresponding to proportion estimates, $\hat{p}_d$, the number of drug users, $\hat{Y}_d$, can be estimated as

$$\hat{Y}_d = \hat{N}_d \hat{p}_d ,$$

where $\hat{N}_d$ is the estimated population total for domain *d*, and $\hat{p}_d$ is the estimated proportion for domain *d*. The SE for the total estimate is obtained by multiplying the SE of the proportion by $\hat{N}_d$, that is,

$$SE(\hat{Y}_d) = \hat{N}_d SE(\hat{p}_d) .$$

This approach is theoretically correct when the domain size estimates, $\hat{N}_d$, are among those forced to Census Bureau population projections through the weight calibration process. In these cases, $\hat{N}_d$ is clearly not subject to sampling error. For a more detailed explanation of the weight calibration process, see Section A.3.2 in Appendix A.

For domain totals, $\hat{Y}_d$, where $\hat{N}_d$ is not fixed, this formulation may still provide a good approximation if it can be reasonably assumed that the sampling variation in $\hat{N}_d$ is negligible relative to the sampling variation in $\hat{p}_d$. This is a reasonable assumption in most cases.

For a subset of the tables produced from the 2002 data, it was clear that the above approach yielded an underestimate of the variance of a total because $\hat{N}_d$ was subject to considerable variation. In these cases, a different method was used to estimate variances. SUDAAN provides an option to directly estimate the variance of the linear statistic that estimates a population total. Using this option did not affect the SE estimates for the corresponding proportions presented in the same sets of tables.

B.2.2 Suppression Criteria for Unreliable Estimates

As has been done in past reports from the National Household Survey on Drug Abuse (NHSDA),[1] direct survey estimates from the 2002 NSDUH considered to be unreliable due to unacceptably large sampling errors are not shown in this report and are noted by asterisks (*) in the tables containing such estimates. The criteria used for suppressing all direct survey estimates were based on the relative standard error (RSE), which is defined as the ratio of the standard error (SE) over the estimate, as well as on nominal sample size and on effective sample size. The criteria are summarized in Table B.1.

Proportion estimates ($\hat{p}$) within the range [$0 < \hat{p} < 1$], rates, and corresponding estimated number of users were suppressed if

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[1] Beginning with the 2002 survey year, the survey name was changed from the National Household Survey on Drug Abuse (NHSDA) to the National Survey on Drug Use and Health (NSDUH).

$$\text{RSE}[-\ln(\hat{p})] > 0.175 \text{ when } \hat{p} \le 0.5$$

or

$$\text{RSE}[-\ln(1 - \hat{p})] > 0.175 \text{ when } \hat{p} > 0.5.$$

Using a first-order Taylor series approximation to estimate RSE[-ln($\hat{p}$)] and RSE[-ln(1 - $\hat{p}$)], the following was obtained and used for computational purposes:

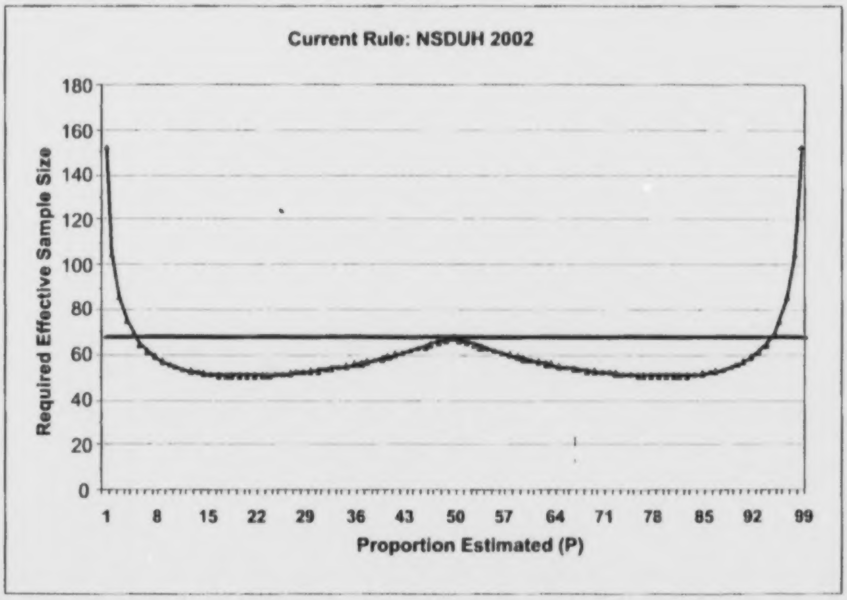
$$\frac{SE(\hat{p})/\hat{p}}{-\ln(\hat{p})} > 0.175 \text{ when } \hat{p} \le 0.5$$

or

$$\frac{SE(\hat{p})/(1-\hat{p})}{-\ln(1-\hat{p})} > 0.175 \text{ when } \hat{p} > 0.5.$$

The separate formulas for $\hat{p} \le 0.5$ and $\hat{p} > 0.5$ produce a symmetric suppression rule (i.e., if $\hat{p}$ is suppressed, then 1 - $\hat{p}$ will be as well). This ad hoc rule requires an effective sample size in excess of 50. When $0.05 < \hat{p} < 0.95$, the symmetric property of the rule produces a local maximum effective sample size of 68 at $\hat{p} = 0.5$. Thus, estimates with these values of $\hat{p}$ along with effective sample sizes falling below 68 are suppressed. See Figure B.1 for a graphical representation of the required minimum effective sample sizes as a function of the proportion estimated.

Figure B.1 Required Effective Sample as a Function of the Proportion Estimated



A minimum nominal sample size suppression criterion ($n = 100$) that protects against unreliable estimates caused by small design effects and small nominal sample sizes was employed. Prevalence estimates also were suppressed if they were close to 0 or 100 percent (i.e., if $\hat{p} < .00005$ or if $\hat{p} \geq .99995$).

Estimates of other totals (e.g., number of initiates) along with means and rates (both not bounded between 0 and 1) were suppressed if $RSE(\hat{p}) > 0.5$. Additionally, estimates of the mean age at first use were suppressed if the sample size was smaller than 10 respondents; moreover, the estimated incidence rate and number of initiates were suppressed if they rounded to 0.

The suppression criteria for various NSDUH estimates are summarized in Table B.1 at the end of this appendix.

B.2.3 Statistical Significance of Differences

This section describes the methods used to compare prevalence estimates in this report. Customarily, the observed difference between estimates is evaluated in terms of its statistical significance. "Statistical significance" refers to the probability that a difference as large as that observed would occur due to random error in the estimates if there were no difference in the prevalence rates for the population groups being compared. The significance of observed differences in this report is generally reported at the 0.05 and 0.01 levels. When comparing prevalence estimates, the null hypothesis (no difference between prevalence rates) can be tested against the alternative hypothesis (there is a difference in prevalence rates) using the standard difference in proportions test expressed as follows:

$$Z = \frac{\hat{p}_1 - \hat{p}_2}{\sqrt{var(\hat{p}_1) + var(\hat{p}_2) - 2cov(\hat{p}_1, \hat{p}_2)}} ,$$

where $\hat{p}_1$ = first prevalence estimate, $\hat{p}_2$ = second prevalence estimate, *var*($\hat{p}_1$) = variance of first prevalence estimate, *var*($\hat{p}_2$) = variance of second prevalence estimate, and *cov*($\hat{p}_1$, $\hat{p}_2$) = covariance between $\hat{p}_1$ and $\hat{p}_2$.

Under the null hypothesis, Z is asymptotically distributed as a normal random variable. Calculated values of Z can therefore be referred to as the unit normal distribution to determine the corresponding probability level (i.e., p value). The covariance term in the formula for Z will not always be 0. Estimates of Z, along with its p value, were calculated in SUDAAN, using the analysis weights and accounting for the sample design as described in Appendix A. A similar procedure and formula for Z were used for estimated totals.

When comparing prevalence measures between population subgroups, a χ^2 test of independence of the subgroup and the prevalence variable was conducted first to control the error level for multiple comparisons. If the χ^2 test indicated some significant differences, the significance of each particular subgroup comparison discussed in the report was tested using SUDAAN. Using the published estimates and standard errors to perform independent t tests for the difference of proportions will usually provide the same results as tests performed in SUDAAN. However, where the significance level is borderline, results may differ for two reasons: (1) the covariance term is included in SUDAAN tests whereas it is not included in independent *t* tests, and (2) the reduced number of significant digits shown in the published estimates may cause rounding errors in the independent *t* tests.

B.3 Nonsampling Error

Nonsampling errors can occur from nonresponse, coding errors, computer processing errors, errors in the sampling frame, reporting errors, and other errors not due to sampling. Nonsampling errors are reduced through data editing, statistical adjustments for nonresponse, close monitoring and periodic retraining of interviewers, and improvement in various quality control procedures.

Although nonsampling errors can often be much larger than sampling errors, measurement of most nonsampling errors is difficult or impossible. However, some indication of the effects of some types of nonsampling errors can be obtained through proxy measures, such as response rates and from other research studies.

B.3.1 Screening and Interview Response Rate Patterns

In 2002, response rates were improved over prior years by providing respondents with a $30 incentive. Of the 150,162 eligible households sampled for the 2002 NSDUH main study, 136,349 were successfully screened for a weighted screening response rate of 90.7 percent (Table B.2). In these screened households, a total of 80,581 sample persons were selected, and completed interviews were obtained from 68,126 of these sample persons, for a weighted interview response rate of 78.6 percent (Table B.3). A total of 7,583 (13.3 percent) sample persons were classified as refusals or parental refusals, 3,252 (4.5 percent) were not available or never at home, and 1,620 (3.7 percent) did not participate for various other reasons, such as physical or mental incompetence or language barrier (see Table B.3, which also shows the distribution of the selected sample by interview code and age group). The weighted interview response rate was highest among 12 to 17 year olds (90.0 percent), females (80.0 percent), blacks and Hispanics (82.2 and 80.9 percent, respectively), in nonmetropolitan areas (81.4 percent), and among persons residing in the Midwest (80.0 percent) (Table B.4).

The overall weighted response rate, defined as the product of the weighted screening response rate and weighted interview response rate, was 71.3 percent in 2002. Nonresponse bias can be expressed as the product of the nonresponse rate (1-R) and the difference between the characteristic of interest between respondents and nonrespondents in the population (P_r - P_{nr}). Thus, assuming the quantity (P_r - P_{nr}) is fixed over time, the improvement in response rates in 2002 over prior years will result in estimates with lower nonresponse bias.

B.3.2 Inconsistent Responses and Item Nonresponse

Among survey participants, item response rates were above 99 percent for most questionnaire items. However, inconsistent responses for some items, including the drug use items, were common. Estimates of substance use from NSDUH are based on responses to multiple questions by respondents, so that the maximum amount of information is used in determining whether a respondent is classified as a drug user. Inconsistencies in responses are resolved through a logical editing process that involves some judgment on the part of survey analysts and is a potential source of nonsampling error.

B.3.3 Validity of Self-Reported Use

NSDUH estimates are based on self-reports of drug use, and their value depends on respondents' truthfulness and memory. Although many studies have generally established the validity of self-report data and the NSDUH procedures were designed to encourage honesty and recall, some degree of underreporting is assumed (Harrell, 1997; Harrison & Hughes, 1997; Rouse, Kozel, & Richards, 1985). No adjustment to NSDUH data is made to correct for this. The methodology used in NSDUH has been shown to produce more valid results than other self-report methods (e.g., by telephone) (Aquilino, 1994; Turner, Lessler, & Gfroerer, 1992). However, comparisons of NSDUH data with data from surveys conducted in classrooms suggest that underreporting of drug use by youths in their homes may be substantial (Gfroerer, 1993; Gfroerer, Wright, & Kopstein, 1997).

B.4 Incidence Estimates

For diseases, the incidence rate for a population is defined as the number of new cases of the disease, N, divided by the person time, PT, of exposure or

$$IR = \frac{N}{PT} .$$

The person time of exposure can be measured for the full period of the study or for a shorter period. The person time of exposure ends at the time of diagnosis (e.g., Greenberg, Daniels, Flanders, Eley, & Boring, 1996, pp. 16-19). Similar conventions are applied for defining the incidence of first use of a substance.

Beginning in 1999, the survey questionnaire allows for collection of year and month of first use for recent initiates. Month, day, and year of birth also are obtained directly or imputed in the process. In addition, the questionnaire call record provides the date of the interview. By imputing a day of first use within the year and month of first use reported or imputed, the key respondent inputs in terms of exact dates are known. Exposure time can be determined in terms of days and converted to an annual basis.

Having exact dates of birth and first use also allows the person time of exposure during the targeted period, t, to be determined. Let the target time period for measuring incidence be specified in terms of dates; for example, the period 1998 would be specified as

$$\mathrm{t} = [\mathrm{t}_1, \mathrm{t}_2) = [\textit{1 Jan 1998, 1 Jan 1999}),$$

a period that includes 1 January 1998 and all days up to but not including 1 January 1999. The target age group also can be defined by a half-open interval as $a = [a_1, a_2)$. For example, the age group 12 to 17 would be defined by $a = [12,18)$ for persons at least age 12, but not yet age 18. If person i was in age group a during period t, the time and age interval, $L_{t,a,i}$, can then be determined by the intersection:

$$L_{t,a,i} = [t_1, t_2) \cap [DOB_i MOB_i YOB_i + a_1, DOB_i MOB_i YOB_i + a_2).$$

assuming the time of birth can be written in terms of day (DOB_i), month (MOB_i), and year (YOB_i). Either this intersection will be empty ($L_{t,a,i} = \emptyset$) or it will be designated by the half-open interval, $L_{t,a,i} = [m_{1,i}, m_{2,i})$, where

$$m_{1,i} = Max\{t_1, (DOB_i MOB_i YOB_i + a_1)\}$$

and

$$m_{2,i} = Min\{t_2, (DOB_i MOB_i YOB_i + a_2)\}.$$

The date of first use, $t_{fu,d,i}$, also is expressed as an exact date. An incident of first drug *d* use by person *i* in age group *a* occurs in time $t_{fu,d,i} \in [m_{1,i}, m_{2,i})$. The indicator function $I_i(d,a,t)$ used to count incidents of first use is set to 1 when $t_{fu,d,i} \in [m_{1,i}, m_{2,i})$ and to 0 otherwise. The person-time exposure measured in years and denoted by $e_i(d,a,t)$ for a person *i* of age group *a* depends on the date of first use. If the date of first use precedes the target period ($t_{fu,d,i} < m_{1,i}$), then $e_i(d,a,t) = 0$. If the date of first use occurs after the target period or if person *i* has never used drug *d*, then

$$e_i(d,a,t) = \frac{m_{2,i} - m_{1,i}}{365}.$$

If the date for first use occurs during the target period $L_{t,a,i}$, then

$$e_i(d,a,t) = \frac{t_{fu,di,i} - m_{1,i}}{365}.$$

Note that both $I_i(d,a,t)$ and $e_i(d,a,t)$ are set to 0 if the target period $L_{t,a,i}$ is empty (i.e., person *i* is not in age group *a* during any part of time *t*). The incidence rate is then estimated as a weighted ratio estimate:

$$IR(d,a,t) = \frac{\sum_i w_i I_i(d,a,t)}{\sum_i w_i e_i(d,a,t)},$$

where the w_i are the analytic weights.

Starting in 2002, estimates were reported separately for males and females, as well as overall. These estimates only use data from the 2002 survey because 2002 estimates provide a new baseline for measuring change. Therefore, even though the methodology between 1999-2001 and 2002 is the same, the estimates are not comparable. For a more detailed explanation of the incidence methodology, see Packer, Odom, Chromy, Davis, and Gfroerer (2002). The estimates in this report are based on retrospective reports of age at first drug use by survey respondents interviewed during 2002. Because they are based on retrospective reports as was the case for earlier estimates, they may be subject to some of the same kinds of biases.

Bias due to differential mortality occurs because some persons who were alive and exposed to the risk of first drug use in the historical periods shown in the tables died before the 2002 NSDUH was conducted. This bias is probably very small for estimates shown in this report. Incidence estimates also are affected by memory errors, including recall decay (tendency to forget events occurring long ago) and forward telescoping (tendency to report that an event occurred more recently than it actually did). These memory errors would both tend to result in estimates for earlier years (i.e., 1960s and 1970s) that are downwardly biased (because of recall decay) and estimates for later years that are upwardly biased (because of telescoping). There also is likely to be some underreporting bias due to social acceptability of drug use behaviors and respondents' fear of disclosure. This is likely to have the greatest impact on recent estimates, which reflect more recent use and reporting by younger respondents. Finally, for drug use that is frequently initiated at age 10 or younger, estimates based on retrospective reports 1 year later underestimate total incidence because 11-year-old (and younger) children are not sampled by NSDUH. Prior analyses showed that alcohol and cigarette (any use) incidence estimates could be significantly affected by this. Therefore, for these drugs, only 2001 age-specific rates and the number of initiates 18 or older were reported.

B.5 Retrospective Lifetime Prevalence Measures

Retrospective measures of lifetime substance use prevalence were obtained for prior years based on the 2002 sample. Lifetime prevalence measures are defined as of a specified date as the ratio

$$PR = \frac{N_{users}}{N_{all}},$$

where the numerator, N_{users}, represents all persons who report lifetime use as of that date and the numerator, N_{all}, represents both lifetime users and nonusers. For NSDUH current year estimates, the specified date is the date of interview for each respondent.

As was described in Section B.4, complete data on a respondent's exact date of first substance use is known or imputed during the processing of the current year's data. In addition, the date of interview and date of birth are on the current year's data file. These data make it possible to retrospectively estimate lifetime prevalence measures for prior years based on the current year respondents.

Because comparisons of prevalence rates across years from this analysis are based on a common sample, the precision of trend estimates is improved. On the negative side, the retrospective measures do not properly reflect the impacts of migration and mortality.[2] To control for the possible effects of mortality, the retrospective estimates are limited to the younger age groups: 12 to 17 and 18 to 25. In addition, retrospective prevalence estimates may be biased due to memory errors. As noted in the discussion of incidence estimates (Section B.4), recall decay leads to a general downward bias. Forward telescoping (the tendency to report initial substance use more recently than it actually occurred) will create downward bias in early years, but have little impact on recent estimates. It also should be noted that due to the sampling strategy that selects older persons with lower probabilities of selection, the estimates for early years (reported by persons who are now 26 or older) are based on much smaller sample sizes and subject to more sampling error.

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[2] The same limitations apply to the estimates of incidence rates for prior years based on the current sample responses.

A key assumption for computing retrospective lifetime prevalence estimates is that the month and day of the respondent use and age status in prior years is based on the same month and day as the date of interview in the current survey year. Retrospective estimates, *PR(d,a,t)*, of lifetime substance *d* use were prepared for 1965 to 2002 as a simple ratio estimate for year *t* and age group *a* as:

$$PR(d,a,t)=\frac{\sum_i w_i y_i(d,a,t)}{\sum_i w_i x_i(a,t)},$$

where w_i is the respondent's analytic weight for 2002. The values of $x_i(a,t)$ and $y_i(d,a,t)$ are determined from

- date (day, month, and year) of interview (DOI_i MOI_i YOI_i), designed by t;
- respondent's current age, a_i;
- respondent's lifetime substance *d* use status; and
- respondent's reported date of first use of the substance *d*, $t_{fu,d,i}$ (if the respondent is a lifetime user).

For the current survey year, $x_i(a,t)$ has a value of 1 if the current age of respondent *i* is in the interval *a*, and a value of 0 otherwise. If the age interval is 12 to 17, then the respondent must be at least 12, but not yet 18. For the current survey year, $y_i(d,a,t)$ has a value of 1 if $x_i(a,t)$ has a value of 1 and respondent *i* is a lifetime user of substance *d*. For current lifetime users, this means that their reported date of first use is on or before the date of interview (i.e., if $t_{fu,d,i} \le DOI_i MOI_i YOI_i$). Otherwise, $y_i(d,a,t)$ has a value of 0.

For prior years, it is first necessary to compute the difference in the years as $\Delta t = YOI_i - t$. Then, $x_i(a,t)$ has a value of 1 if respondent *i* retrospectively adjusted age, $a_i - \Delta t$ is in the interval *a*, and a value of 0 otherwise. Also, $y_i(d,a,t)$ has a value of 1 if $x_i(a,t)$ has a value of 1, respondent *i* is a lifetime user of substance *d*, and the reported date of first use is on or before an adjusted date of interview (i.e., if $t_{fu,d,i} \le DOI_i MOI_i YOI_i - \Delta t$). Otherwise, $y_i(d,a,t)$ has a value of 0.

B.6 Serious Mental Illness Estimates

For the 2002 survey, mental health among adults was measured using a scale to ascertain serious mental illness (SMI). This scale consisted of six questions that ask respondents how frequently they experienced symptoms of psychological distress during the 1 month in the past year when they were at their worst emotionally. The use of this scale is based on a methodological study designed to evaluate several screening scales for measuring SMI in NSDUH. These scales consisted of a truncated version of the World Health Organization (WHO) Composite International Diagnostic Interview Short Form (CIDI-SF) scale (Kessler, Andrews, Mroczek, Üstün, & Wittchen, 1998), the K10/K6 scale of nonspecific psychological distress (Furukawa, Kessler, Slade, & Andrews, 2003), and the WHO Disability Assessment Schedule (WHO-DAS) (Rehm et al., 1999).

The methodological study to evaluate the scales consisted of 155 respondents selected from a first-stage sample of 1,000 adults aged 18 or older. First-stage respondents were selected from the Boston metropolitan area and screened on the telephone to determine whether they had any emotional problems. Respondents reporting emotional problems at the first stage were oversampled when selecting the 155 respondents at the second stage. The selected respondents were interviewed by trained clinicians in respondents' homes using both the NSDUH methodology and a structured clinical interview. The first interview included the three scales described above using audio computer-assisted self-interviewing (ACASI). Respondents completed the ACASI portion of the interview without discussing their answers with the clinician. After completing the ACASI interview, respondents then were interviewed using the 12-month nonpatient version of the Structured Clinical Interview for DSM-IV (SCID) (First, Spitzer, Gibbon, & Williams, 1997) and the Global Assessment of Functioning (GAF) (Endicott, Spitzer, Fleiss, & Cohen, 1976) to classify respondents as either having or not having SMI.

The data from the 155 respondents were analyzed using logistic regression analysis to predict SMI from the scores on the screening questions. Analysis of the model fit indicated that each of the scales alone and in combination were significant predictors of SMI and the best fitting models contained either the CIDI-SF or the K10/K6 alone. Receiver operating characteristic (ROC) curve analysis was used to evaluate the precision of the scales to discriminate between respondents with and without SMI. This analysis indicated that the K6 was the best predictor. The results of the methodological study are described in more detail in a paper describing the K10/K6 scale of nonspecific psychological distress (Kessler et al., 2003).

To score the items on the K6 scales, they were first coded from 0 to 4 and summed to yield a number between 0 and 24. This involved transforming response categories for the six questions (DSNERV1, DSHOPE, DSFIDG, DSNOCHR, DSEFFORT, and DSDOWN) given below so that "all of the time" is coded 4, "most of the time" is coded 3, "some of the time" 2, "a little of the time" 1, and "none of the time" 0, with "don't know" and "refuse" also coded 0. Summing across the transformed responses results in a score with a range from 0 to 24. Respondents with a total score of 13 or greater were classified as having a past year SMI. This cutpoint was chosen to equalize false positives and false negatives.

The questions comprising the K6 scale are given as follows:

DSNERV1 Most people have periods when they are not at their best emotionally. Think of one month in the past 12 months when you were the most depressed, anxious, or emotionally stressed. If there was no month like this, think of a typical month.

During that month, how often did you feel nervous?

1 All of the time
2 Most of the time
3 Some of the time
4 A little of the time
5 None of the time
DK/REF

Response categories are the same for the following questions:

DSHOPE During that same month when you were at your worst emotionally . . . how often did you feel hopeless?

DSFIDG During that same month when you were at your worst emotionally . . . how often did you feel restless or fidgety?

DSNOCHR During that same month when you were at your worst emotionally . . . how often did you feel so sad or depressed that nothing could cheer you up?

DSEFFORT During that same month when you were at your worst emotionally . . . how often did you feel that everything was an effort?

DSDOWN During that same month when you were at your worst emotionally . . . how often did you feel down on yourself, no good, or worthless?

Table B.1 Summary of 2002 NSDUH Suppression Rules

Estimate	Suppress if:
Prevalence rate, $\hat{p}$, with nominal sample size, n, and design effect, *deff*	The estimated prevalence rate, $\hat{p}$, is < 0.00005 or ≥ 0.99995, or $\frac{SE(\hat{p})\ /\ \hat{p}}{-\ln(\hat{p})} > 0.175$ when $\hat{p} \leq 0.5$, or $\frac{SE(\hat{p})\ /\ (1 - \hat{p})}{-\ln(1 - \hat{p})} > 0.175$ when $\hat{p} > 0.5$, or Effective $n < 68$, or $n < 100$, where Effective $n = \frac{n}{deff}$. Note: The rounding portion of this suppression rule for prevalence rates will produce some estimates that round at one decimal place to 0.0 or 100.0 percent but are not suppressed from the tables.
Estimated number (numerator of $\hat{p}$)	The estimated prevalence rate, $\hat{p}$, is suppressed. Note: In some instances when $\hat{p}$ is not suppressed, the estimated number may appear as a 0 in the tables; this means that the estimate is > 0 but < 500 (estimated numbers are shown in thousands).
Mean age at first use, $\bar{x}$, with nominal sample size, n	$RSE(\bar{x}) > 0.5$, or $n < 10$.
Incidence rate, $\hat{r}$	Rounds to < 0.1 per 1,000 person-years of exposure, or $RSE(\hat{r}) > 0.5$.
Number of initiates, $\hat{t}$	Rounds to < 1,000 initiates, or $RSE(\hat{t}) > 0.5$.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

Table B.2 Weighted Percentages and Sample Sizes for 2002 NSDUH, by Screening Result Code

	2002 NSDUH	
Screening Result	**Sample Size**	**Weighted Percentage**
Total Sample	178,013	100.00
Ineligible cases	27,851	15.27
Eligible cases	150,162	84.73
Ineligibles	27,851	15.27
Vacant	14,417	51.55
Not a primary residence	4,580	17.36
Not a dwelling unit	2,403	8.16
Resident < 1/2 of quarter	0	0.00
All military personnel	289	1.08
Other, ineligible	6,162	21.86
Eligible Cases	150,162	84.73
Screening complete	136,349	90.72
No one selected	80,557	53.14
One selected	30,738	20.58
Two selected	25,054	17.00
Screening not complete	13,813	9.28
No one home	3,031	2.02
Respondent unavailable	411	0.26
Physically or mentally incompetent	307	0.20
Language barrier—Hispanic	66	0.05
Language barrier—other	461	0.35
Refusal	8,556	5.86
Other, access denied	471	0.30
Other, eligible	12	0.01
Segment not accessible	0	0.00
Screener not returned	15	0.01
Fraudulent case	479	0.21
Electronic screening problem	4	0.00

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

Table B.3 Weighted Percentages and Sample Sizes for 2002 NSDUH, by Final Interview Code

	Persons Aged 12 or Older		Persons Aged 12-17		Persons Aged 18 or Older	
Final Interview Code	**Sample Size**	**Weighted Percentage**	**Sample Size**	**Weighted Percentage**	**Sample Size**	**Weighted Percentage**
Total	80,581	100.00	26,230	100.00	54,351	100.00
Interview Complete	68,126	78.56	23,659	89.99	44,467	77.20
No One at Dwelling Unit	1,359	1.81	182	0.70	1,177	1.94
Respondent Unavailable	1,893	2.71	329	1.20	1,564	2.89
Break-Off	48	0.10	9	0.04	39	0.11
Physically/Mentally Incompetent	692	1.75	161	0.57	531	1.89
Language Barrier - Spanish	138	0.19	9	0.04	129	0.21
Language Barrier - Other	327	1.09	24	0.13	303	1.21
Refusal	6,276	12.73	464	1.81	5,812	14.03
Parental Refusal	1,307	0.55	1,307	5.15	0	0.00
Other	415	0.52	86	0.38	329	0.53

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

Table B.4 Response Rates and Sample Sizes for 2002 NSDUH, by Demographic Characteristics

	2002 NSDUH		
	Selected Persons	**Completed Interviews**	**Weighted Response Rate**
Total	80,581	68,126	78.56%
Age in Years			
12-17	26,230	23,659	89.99%
18-25	27,216	23,271	85.16%
26 or older	27,135	21,196	75.81%
Gender			
Male	39,453	32,766	77.06%
Female	41,128	35,360	79.99%
Race/Ethnicity			
Hispanic	10,250	8,692	80.93%
White	55,594	46,834	78.23%
Black	9,385	8,143	82.24%
All other races	5,352	4,457	70.50%
Region			
Northeast	16,490	13,706	75.57%
Midwest	22,588	19,180	80.01%
South	24,530	20,900	79.99%
West	16,973	14,340	77.33%
County Type			
Large metropolitan	32,294	26,792	76.85%
Small metropolitan	28,121	23,944	79.50%
Nonmetropolitan	20,166	17,390	81.38%

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

Appendix C: NSDUH Changes and Their Impact on Trend Measurement

C.1. Background

Although the design of the 2002 National Survey on Drug Use and Health (NSDUH) is similar to the design of the 1999 through 2001 surveys, there are important methodological differences between the 2002 NSDUH and prior surveys:

- The name of the survey was changed in 2002 from the National Household Survey on Drug Abuse (NHSDA).
- Incentive payments of $30 were given to respondents beginning in 2002.
- Improved data collection quality control procedures were introduced in the survey during 2001 and 2002.
- Population data used in NSDUH sample weighting procedures are based on the 2000 decennial census for the first time in the 2002 NSDUH.

These NSDUH changes clearly improved the quality of the data provided by the survey. In particular, there were significant improvements in response rates beginning in January 2002, which probably reduced nonresponse bias in NSDUH. The weighted interview response rate increased from 73.3 to 78.9 percent in 2002. The higher response rates had been expected, based on an experiment conducted in 2001 that showed that incentives increased response rates with no significant impact on prevalence rates. However, the results of the 2002 survey, as well as more recent analyses of data from the 2001 experiment, suggest that the incentive, and possibly the other survey changes, did have an impact on the estimates produced from the 2002 survey. Estimates of rates of substance use, dependence and abuse, and serious mental illness (SMI) were significantly higher in 2002 than in 2001. Analysis of the 2001 and 2002 data has shown that many of these "increases" could not possibly be real and are likely to be artifacts of the changes in the survey procedures. A key finding was that the increases in rates of lifetime use were inconsistent with rates of new use. For example, NHSDA data for recent years have consistently shown fewer than 3 million persons had tried marijuana for the first time each year; however, the estimated number of persons who had ever used marijuana, based on the 2002 NSDUH, was 10.5 million greater than the estimate from the 2001 survey.[1]

Results of these analyses were presented to a panel of survey methodology experts, who concluded that, because of the survey improvements, 2002 estimates should not be compared with 2001 and earlier estimates. The panel also concluded that, because of the multiple changes made to the survey simultaneously, it would not be possible to measure the effects of each change or to develop a method of "adjusting" pre-2002 data to make them comparable for trend assessment. The panel also recommended that the Substance Abuse and Mental Health Services

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[1] After adjustment of 2001 estimates to reflect 2000 census projections.

Administration (SAMHSA) continue its analyses of the 2001 and 2002 data to learn as much as possible about the impacts of each of the methodological improvements. This appendix summarizes these analyses to date.

C.2. Description of Changes

C.2.1 Name Change in 2002

In 2000, the Secretary of the Department of Health and Human Services (DHHS) requested that SAMHSA change the name of the survey to make it more representative of the topic and content of the survey. There was concern that the original name might have been misleading or threatening to potential respondents. In particular, there were three ways in which the name could have been affecting respondent attitudes and behaviors:

1. Use of the term "drug abuse" implied a focus on hard-core users of illicit drugs. This could increase refusals or suppress the recall of past use among casual users, past users, and users of legal drugs who could think their experiences were not applicable to the study.
2. The term "drug abuse" also might have been threatening to users of illicit drugs who feared investigation and arrest by law enforcement.
3. A title including only drug use fails to convey the scope and variety of general-interest topics included in the survey.

To aid in selecting a new name for the study, project staff conducted an "Evaluation of Potential Name Change" in March 2001. Supervisory, office, and interviewing staff responded to questionnaires and participated in conference calls that solicited their opinions on the new names and terminology under consideration. Following this study, SAMHSA decided on the NSDUH name.

Beginning with the 2002 survey, references to NHSDA were replaced with NSDUH in all project materials, including the computer-assisted interviewing (CAI) and screening questionnaires, informed consent documents, all supplementary respondent materials, all in-house documentation, and all project reports.

C.2.2 Incentive Payment of $30

There was a considerable decline in NHSDA response rates between 1998 and 1999 due mainly to the transition from a national probability sample to a much larger sample designed to yield State-level estimates. The increase in sample size required a large expansion in the field interviewer (FI) staff, resulting in difficulties in recruiting FIs in some areas, as well as increasing the proportion of inexperienced interviewers. Several management actions were made to improve the response rates. These actions included a reduction in interviewer caseload, an increase in the management-to-staff ratio, additional training sessions for field staff, interviewer pay adjustments, use of sample waves, site visits by field supervisors, and the use of traveling interviewers (Eyerman, Odom, Wu, & Butler, 2002). In general, the adjustments were successful, and a recovery was made from the 1999 decline. However, the rates remained below the project target rate and the historical average. Therefore, an incentive payment to respondents was considered as an option for addressing the downward trend in respondent cooperation. In an effort to understand the risks and benefits associated with a respondent incentive, an incentive experiment was conducted to compare the effectiveness of $40 and $20 incentive payments with a $0 control group. The experiment was overlaid on the NHSDA main study data collection sample and conducted during the first two quarters of 2001.

The results of the incentive experiment showed that the $20 and $40 treatments produced significantly better interview response rates than the control group (Office of Applied Studies [OAS], 2000d). Both treatments had significantly lower refusal rates than the $0 group, and the $40 treatment had significantly lower noncontact rates than the $0 group. FIs reported that the incentives reduced the amount of effort required to complete a case and that the payments influenced the respondent's decision to cooperate. Furthermore, both the $20 and the $40 treatments more than paid for themselves, each resulting in a lower data collection cost per completed case, including incentive payment, than the control.

The initial analysis of the incentive experiment showed little impact on the population estimates of past month alcohol, cigarette, or marijuana use. The prevalence rates for past month use of these substances by respondents in the treatment groups were not significantly different from those reported by respondents in the control group. Based on the results of this study, a $30 incentive payment was offered to respondents beginning with the 2002 NSDUH. The lead letter, study description, informed consent item of the screening script, interview introduction and informed consent documents, and question-and-answer brochure were altered to include the information that, at the conclusion of the CAI interview, the respondent is given the $30 incentive payment and one copy of an interview payment receipt. Information about the incentive also was added to the videos sent to managers of properties to which the interviewers could not gain access.

C.2.3 Improved Data Collection Quality Control Procedures

A series of methodological analyses was conducted in 2000 to evaluate the impact of the 1999 redesign of the survey on a variety of measures, including response rates, data quality, and prevalence estimates (Gfroerer, Eyerman, & Chromy, 2002a). Analyses revealed that the interviews completed by newer field staff yielded slightly higher but statistically significant prevalence rates than those completed by the more experienced staff (Hughes, Chromy, Giacoletti, & Odom, 2002). Anecdotal evidence suggested that the newer interviewers were following the survey protocol more closely than the veteran staff, which resulted in higher self-reports of substance use by respondents. These findings led to an increased awareness of the potential for field staff to affect the outcome of the survey. The project team responded by implementing a series of changes to the field procedures to reduce the potential for an interviewer to bias the prevalence rates. These changes included the following:

- field staff monitoring by management staff through in-person observations of the screening and interviewing process was conducted during two periods—February through early April 2001 and July through early August 2001;

- beginning in July 2001, interviewers were provided additional guidelines ("Steps to Maximize Data Quality") to reinforce and encourage compliance with study protocols (these were combined with conference calls hosted by field managers to review the contents of the guidelines);

- during October and November of 2001, a series of weekly training sessions were held with FIs to review specific topics on survey protocol;

- beginning in January 2002, new training modules were added to the veteran and new-to-project training sessions that placed additional emphasis on respondent rights, gaining cooperation, data quality, and project protocols;

- beginning in January 2002, a certification process was used to evaluate the adherence of each interviewer to the project protocols during mock screening and interview sessions; and

- beginning in January 2002, an electronic home study was completed by all veteran interviewers prior to the training session.

These changes were implemented to reduce the influence of individual interviewers on the survey process. However, it is possible that increased emphasis on protocol may have improved respondent recall and reduced underreporting of socially undesirable substance use behaviors. For example, it is possible that some veteran interviewers were intentionally or unintentionally shortening the interview by placing less emphasis on survey instructions and confidentiality statements. This may have reduced the effectiveness of recall tools, such as the reference calendar, and increased respondent concerns about reporting sensitive issues. The increased emphasis on protocol should have improved the performance of interviewers and resulted in a higher prevalence rate closer to the true value in the population.

It should be noted that the first three of the six changes listed above were introduced at different times during 2001 and were analyzed as temporal interventions. The final three changes were implemented at the beginning of the 2002 survey year, along with the introduction of the $30 incentive payment and the new name of the survey. As a result, it is very difficult to isolate the impact of these changes.

C.2.4 Use of 2000 Census-Based Control Totals

Estimates of substance use from NSDUH depend on person-level weights calibrated to match population projections based on the latest census data available. The 1999, 2000, and 2001 surveys provide estimates of substance use that depend on weights based on projections from the 1990 decennial census. The 2002 survey used projections from the 2000 census data to calculate the appropriate weights. It is possible that changes in the demographic distribution in the 2000 census may have yielded an annual change in the substance use estimates. If so, this change would be an artifact of the weighting procedures and not a true change in the number of substance users in 2002.

C.3. Analyses of the Impact of Changes

The analyses of the impact of the methodological changes began in 2002 after preliminary runs from the 2002 NSDUH indicated significant improvements in response rates and unexpected shifts in substance use prevalence rates. Of particular concern were large increases in rates of lifetime use of marijuana, cocaine, and other substances. In addition, subsequent extended analysis of the incentive experiment data indicated that the prevalence estimates may have been influenced by the use of the incentive (Wright, Bowman, Butler, & Eyerman, 2002).

Early analyses were presented to the panel of survey design experts convened on September 12, 2002. The panel recommended a series of additional analyses to inform an understanding of the methods' effects. Based on the panel's recommendations, an analysis plan was developed to assess the impact of the methodological changes on the reported prevalence rates. Preliminary results from five of these analyses are presented in this appendix:

- retrospective cohort analysis;
- response rate pattern analysis;
- response rate impact analysis;
- analysis of the impact of new census data; and
- model-based analysis of protocol changes, name change, and incentives.

The purpose of the ***retrospective cohort analysis*** was to evaluate the changes in the estimates of lifetime use reported in the 2002 survey. As stated above, estimates of lifetime use were noticeably higher than in past years and were inconsistent with rates of new use. This analysis provides a more detailed evaluation the change by comparing lifetime prevalence estimates with the retrospectively reported lifetime use estimates.

The purpose of the ***response rate pattern analysis*** was to assess the impact of the methodological changes on the response rates of different demographic subpopulations. A series of tables was generated to assess screening and interview response rate changes associated with various geographic and demographic characteristics, reasons for refusal, and FI characteristics.

The purpose of the ***response rate impact analysis*** was to assess the potential levels of substance use prevalence under different assumed scenarios about the behavior of the respondents "added" as a result of the higher response rates under the new methodological conditions. It is possible that the increase in 2002 was due to "added" respondents in 2002 that have high rates of drug use.

The purpose of the ***analysis of the impact of new census data*** is to determine if any part of the increases in substance use observed in 2002 is due to the transition from 1990 census data to 2000 census data for weight calculations. This analysis examines the effect of the two censuses on estimates of lifetime use and the impact on trend analysis. It includes an assessment of the changing demographic base from 1990 to 2000 and an examination of lifetime use of any illicit drug, marijuana, cocaine, cigarettes, and alcohol.

The purpose of the ***model-based analysis*** is to improve an understanding of how much each of the methodological changes that can be measured might be influencing the comparisons of 2001 and 2002 data. This analysis attempts to control for as many of the confounding influences as possible in order to isolate the impact of each of the methododological changes on the substance use estimates.

C.3.1 Retrospective Cohort Analysis

Changes in the number of lifetime users of specific drugs were examined based on direct survey estimates, as well as the numbers of new users occurring within the preceding year. The 2001 and 2002 direct survey estimates of the number of lifetime users of marijuana and cocaine showed unusually large increases from 2001 to 2002, but analysis of data on initiation of use within each survey year suggests increases in lifetime use that are more stable (Table C.1).

Based on the current questionnaire, it is possible to construct a retrospective measure that specifies whether the respondent was already a lifetime user a year earlier. Respondents are asked their age at the time of first use, and if that age is within 1 year of their current age, the respondent also is asked for the month and year of first use. This information, along with the date of the interview, can be used to determine whether the respondent first became a lifetime user during the past year. The questionnaire does not identify the respondent's earlier status as a past year or past month user except that he or she must have been a lifetime user to qualify as a past year or past month user.

The retrospective approach gives insight into the nature of the change in lifetime use for different age groups. It accounts for how much of the change is due to initiation of use in the past year, and how much is due to a cohort shift out of lower and into higher age groups in the past year (see Table C.1). The data show that most new users occurred in the 12 to 17 and 18 to 25 age groups, but this is masked in the 12 to 17 age group by the large negative cohort shift (i.e., large numbers who turned 18 and small numbers who turned 12 in the past year). By contrast, in the 26 or older age group, most of the change in lifetime use was driven by cohort shifts, and this is most noticeable in the 50 or older age group. This analysis demonstrates that the increases in lifetime substance use rates in 2002 could not be due to an increase in new initiates or cohort shift. From this it can be concluded that the 2002 data are not comparable with data from previous surveys.

C.3.2 Response Rate Pattern Analysis

Table C.2 provides the quarterly distribution of screening and interviewing results from 2000 to 2002. The screening response rate (labeled "complete" in the table) was largely unaffected by the methodological changes. The screening response rate was around 93 percent in 2000, 92 percent in 2001, and 91 percent in 2002. The decline in the screening response rate was unexpected and probably was a result of the unfamiliarity of the field staff with the new procedures. The rate was lowest in the first quarter and rose consistently throughout the year (e.g., from 89.8, 90.5, 91.2, to 91.4 percent in 2002). The interview response rate, on the other hand, showed its largest increase between quarter 4 of 2001 and quarter 1 of 2002 (71.97 and 80.78 percent, respectively). Interview response rates remained high for the remainder of the 2002 survey year.

The increase in response rate between quarter 4 of 2001 and quarter 1 of 2002 was consistent across geographic and demographic subgroups (see Table C.3). The Northeast and West regions showed the largest increases—9.88 and 9.10 percent, respectively. Interview response rates increased across population densities, with metropolitan statistical areas (MSAs) having fewer than 1 million people showing the largest effect (10.24 percentage points higher in quarter 1 of 2002 than in quarter 4 of 2001). Finally, the most affected demographic groups were the younger age groups (increases of 10.06 and 13.67 percent, respectively, for youths aged 12 to 17 and persons aged 18 to 25) and non-Hispanic blacks (+9.95 percent). Males and females responded approximately the same to the methodological changes. However, the gains for the older age groups in quarter 1 of 2003 attenuated as the year progressed. The 50 or older age group initially realized gains of about 7.6 percent in quarter 1 of 2002, but dropped down nearly to the 2001 level by quarter 4 of 2002. The improvement in response rates was less among the older adults than the other age groups. The response rate only improved from 69.92 to 71.54 percent for the 50 or older age group (see Table C.4). This is due in part to the change in the pair selection algorithm in 2002 that increased the pairs selected in this age group.

Table C.4 provides interview response rates by selected age group pairs. This table suggests that the incentive may have attenuated or reversed the negative impact of the pair sampling on response rates that was observed in prior surveys. The increase from 2001 to 2002 was seen among all age group combinations. Tables C.5 and C.6 provide breakdowns of screening and interview results by final disposition. The screening refusal rate increased between 2001 and 2002 (from 4.93 to 5.86 percent, respectively). "Nothing in it for me" was the most popular reason for refusing the screener and the interview across all 3 years; however, this reason for refusal decreased among interview respondents from 2001 to 2002 (7.06 to 5.52 percent).

Finally, screening and interview response rates were examined with respect to interviewer characteristics. In 2001, interviewers with some experience achieved a 73.80 percent interview response rate, while those with no experience achieved 70.57 percent rate. In 2002, these figures were 78.78 and 76.39 percent for experienced and inexperienced interviewers, respectively. The gap between experienced and inexperienced interviewer performance in obtaining interviews at screened households closed by nearly 1 percentage point.

In conclusion, the methodological changes implemented in 2002 were accompanied by substantial increases in interview response rates. These increases were seen across all geographic and demographic subgroups and for both experienced and inexperienced interviewers. Screening response rates, however, were largely unaffected. Despite the increase in interview response rates, the weighted distribution of respondents across population densities and demographic characteristics stayed the same (see Table C.12).

C.3.3 Response Rate Impact Analysis

Prevalence estimates of most substance use measures showed increases from the 2001 to 2002 surveys across all age categories. There also was a corresponding increase in response rates across all age categories. The increased response rates may be due to several reasons, such as the name change from NHSDA to NSDUH, or the application of a $30 incentive to all respondents from January 2002. The objective of this investigation is to see the extent to which the higher prevalence rates may be attributed to the increase in response rates and associated reporting of higher prevalence levels among new respondents who participated because of the survey changes as opposed to increased reporting among respondents who would have participated without the survey changes but now admit to more substance use because of the change.

The weighted overall response rates for 2001 and 2002 for different age categories are given in Tables C.7 to C.11. This investigation focused on how the "additional" respondents in 2002 may have affected the prevalence rates by calculating the "marginal" prevalence rates of those additional respondents. Following the method of Deming (1953), the 2002 marginal prevalence rates of the additional respondents $\hat{P}_{mar}$ are computed (in percentages) as follows:

$$\hat{P}_{mar} = \left(r_2\hat{P}_2 - r_1\hat{P}_1\right)/(r_2 - r_1),$$

where r_1 and r_2, respectively, are the weighted overall response rates for 2001 and 2002, and $\hat{P}_1$ and $\hat{P}_2$, respectively, are the 2001 and 2002 reported prevalence rates in percentages. If $\hat{P}_{mar}$ falls outside the interval [0, 100], then the change in reported prevalence rates from 2001 to 2002 is due to factors other than simply the increase in response rates. This calculation of the marginal prevalence rate assumes that all of the difference between $\hat{P}_1$ and $\hat{P}_2$ is due to the "new" responders. An implication of the marginal prevalence rate falling between 0 and 100 is that it is *possible* that the higher (or lower) prevalence rate in 2002 could be due to the marginal respondents if it is believed that group could have reported the marginal prevalence rate $\hat{P}_{mar}$.

Table C.7 shows the 2001, 2002, and marginal prevalence estimates for various substance use and mental health measures among respondents aged 12 or older. The measures include lifetime, past year, and past month use of any illicit drug, marijuana, cocaine, cigarettes, and alcohol; illicit drug dependence or abuse; illicit drug specialty treatment; alcohol or drug dependence or abuse; serious mental illness (SMI); and perceived risk of using marijuana once a month. Tables C.8 to C.11 show the same information for the remaining age categories.

For the 12 or older age category in Table C.7, marginal estimates of lifetime use for all substances except cocaine exceed 100. This means that, except for cocaine, increases in lifetime use cannot be fully explained by the increase in response rates. Marginal estimates of measures other than lifetime use exceed 100 only twice (past year and past month use of alcohol), but these estimates are typically much larger than the 2001 or 2002 estimates, suggesting that the annual increases also are due to factors beyond the increased response rates. For one of the measures (perceived risk of using marijuana), the marginal estimate is negative, meaning that the corresponding annual decrease cannot be attributed to the increased response rate alone.

For the 12 to 17 age group in Table C.8, the marginal estimates of most measures are usually higher than the 2001 and 2002 estimates, but they are within the plausible range of 0 to 100. This is due to a combination of the factors that the increases in prevalence rates were relatively smaller and the increases in response rates were relatively larger in this age group. The marginal estimate of one measure (perceived risk of using marijuana) is negative.

These results must be interpreted with caution because of the underlying assumption that all of the difference between the 2001 and 2002 prevalence rates was due to methodological effects. Of course, there may have been true increases or decreases between those years, implying that the actual estimates of marginal rates made above could be somewhat smaller or larger in reality. This problem can be illustrated with two examples where the true level of change is better known. For adults aged 50 or older, the change for lifetime use of marijuana between 2001 (17.3 percent) and 2002 (21.8 percent) was 4.5 percent. The marginal rate was estimated to be 453.2, under the assumption that all of the increase was due to the "added" respondents. However, the prevalence of lifetime marijuana use in this age group is believed to be increasing by approximately 2 percent a year simply because of the aging of cohorts with high rates of lifetime use into this age group, estimated as follows. About half of the persons aged 49 in 2001 had used marijuana in their lifetime. This cohort entered the 50 or older age group in 2002, adding about 4 million persons and 2 million lifetime users to this age group. Approximately 2 million deaths per year occur in this age group, but only about 5 percent would have ever used marijuana, based on age-specific prevalence rates and death rates. Thus, the rate of lifetime marijuana use in this age group would be expected to rise from about 17.3 percent in 2001 to about 19.3 percent in 2002. Assuming that about 2 percent of the 4.5 percent change in prevalence between 2001 and 2002 was the "true" trend, a revised marginal prevalence for "additional" respondents aged 50 or older would be calculated by assuming $\hat{P}_1 = 19.3$. This results in a revised marginal rate of 261.5—still indicating that the additional respondents in 2002 could not have accounted for all of the prevalence increase.

Another example is the estimated rate of past month cigarette use among youths aged 12 to 17. For 2001 and 2002, the NHSDA/NSDUH estimates of past month cigarette use among youths were 12.9 and 13.0 percent, respectively. However, results from other youth surveys indicate that youth cigarette use has been declining for a number of years. For example, the Monitoring the Future data (Johnston, O'Malley, & Bachman, 2003a, 2003b) show a continued decrease in past month use of cigarettes among youths from 1997 through 2002. Between 2001 and 2002, the rate of decline in cigarette use among 8th and 10th graders (see Table 10.1 in Chapter 10 of this report) was about 15 percent (from 16.8 to 14.2 percent). Assuming a "true" rate of decline of 15 percent among youths aged 12 to 17 (i.e., assume $\hat{P}_1 = 11.0$), the resulting marginal prevalence rate is 47.3 instead of the 14.7 that results from assuming no change from 2001 to 2002 (see Table C.8).

Despite this limitation, the analysis provides results that are useful in determining the extent to which the higher response rate achieved in the 2002 survey was the cause of the higher prevalence estimates observed in 2002. In general, it appears unlikely that the additional respondents participating in 2002 could be solely responsible for all of the higher prevalence rates, especially among older adults. The methodological changes introduced in 2002, particularly the incentives and name change, apparently had a variable effect on the reporting of substance use and other measures among a large part of the sample.

This conclusion is further supported by Table C.12 in which the weighted distribution of the sample is given for 1999 through 2002. The weighted sample distribution for such factors as gender, race, and Hispanic origin is controlled through the weight calibration process and shows some changes over time reflecting the census projections used in the weight calibration process. The weighted distributions for other factors, such as population density, marital status, education, employment, and income, are not directly controlled by the weight calibration process. Similar moderate changes over time are shown in Table C.12 for these variables, supporting the conclusion that the "additional" respondents in 2002 did not significantly change the weighted distribution of the sample on these selected demographic factors and should, therefore, have had little impact on substance use estimates that are correlated with these demographic factors.

C.3.4 Impact of New Census Data

This analysis examined the extent to which demographic shifts between the two censuses, not accounted for in intercensal projections, may have on estimates of substance use. Estimates of lifetime and past month use of five key measures (any illicit drug, marijuana, cocaine, cigarettes, and alcohol) were examined for 2001 and 2002 in terms of both counts and rates. The direct estimate of the census effect, available from the 2001 survey, also was examined.

Between 1990 and 2000, there is clear evidence of a relative surge in the Hispanic population. There is also clear evidence of a population "bulge" at ages 25 to 34 in 1990 that shifted a decade in 2000. These changes beg several questions: For example, how well do intercensal population projections based on the 1990 census capture these demographic changes? And if the intercensal projections fail to adequately capture those changes, what effects do those errors have on survey estimates?

Annual estimates of lifetime and past month use (counts and rates) of five key measures (any illicit drug, marijuana, cocaine, cigarettes, and alcohol) were examined for 2001 and 2002. The 2001 estimates were based on 1990 census-derived weights, and the 2002 estimates were based on 2000 census-derived weights. The 2001 estimates also were recalculated using the 2000 census data, giving a direct estimate of the census effect in 2001.[2] Survey estimates of lifetime and past month use counts and rates for the five measures from 2001 and 2002 are given in Table C.13.

In terms of lifetime use, there is evidence of a positive census effect in all five measures in 2001, indicating that the 2001 estimates based on 1990 census projections may have been underestimated. This effect is small but discernible for any illicit drug, marijuana, and cocaine. However, for cigarettes and alcohol, the effect is fairly large relative to the sizes of the annual increases. Similar conclusions can be drawn for the past month use estimates.

Table C.13 also shows that the census effect all but disappears for estimates of lifetime and past month use rates. This is not surprising because the prevalence rate is calculated as the lifetime or past month use count divided by the total population count. Moreoever, because both the numerator and denominator in a ratio of this kind are estimates based on weights derived from the same intracensal population projections, one might expect the census effect to largely cancel out.

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[2] An additional difference between the 1990 and 2000 census-derived weights is present. The 1990 census-derived weights were calibrated to *five* groups (12 to 17, 18 to 25, 26 to 34, 35 to 49, and 50 or older); however, the 2000 census-derived weights were calibrated to *six* age groups (12 to 17, 18 to 25, 26 to 34, 35 to 49, 50 to 64, and 65 or older).

The census effect for different race categories in terms of counts and rates is shown in Table C.14 by comparing 2001 lifetime and past month use estimates using weights based on projections from both censuses in question. The census effect in lifetime use counts is largest among Hispanics for all five measures. For all other race categories, the effect is small or even negative in some cases. On the other hand, the census effect in lifetime use rates among Hispanics has largely disappeared. There also is a small negative census effect among whites for all five measures. Estimates of past month use show analogous results.

The census effect for different age categories in terms of counts and rates is shown in Table C.15 by comparing 2001 lifetime and past month use estimates using weights based on projections from both censuses in question. The census effect in lifetime use counts is largest in the 26 to 34 age group for all measures. For all other age categories, the effect is small or even negative in some cases, except for cigarettes and tobacco, where the census effect among the 50 or older age group is relatively large. Contrast this with the negative census effect in the 50 or older age group for the other three measures. The census effect in lifetime use rates has been significantly reduced for all age categories and measures. Similar conclusions hold for past month use estimates.

C.3.5 Model-Based Analysis

To focus on the impact of methodological changes on reported substance use, it was necessary to focus on subsets of the data. These data subsets were used to obtain comparable measures taken before and after implementation of some methodological intervention or to limit the analysis to experimental comparisons involving only a portion of the total sample. To help control for factors unrelated to the methodological interventions, model-based analytic procedures were used. Model-based analysis of the effects of interviewer monitoring and training interventions and of the combined effects of incentives and name change are discussed below.

C.3.5.1 Impact of Interviewer Monitoring and Training

As described earlier, a number of interviewer monitoring and training interventions were implemented during the 2001 survey. Special analyses were conducted to assess the potential impact of these interventions.

The first intervention involved nonrandom field interview observations carried out during two periods: February through early April and July through early August 2001. The purpose of the interview was to note any deviations from the specified protocol in screening or interviewing and provide feedback to the FI. To assess the impact of this intervention, the observed interview and any subsequent interviews conducted by the observed interviewer were considered to have received this intervention. Because not all interviewers were observed, three levels of the treatment variable were defined:

- interviewer not observed during 2001;

- interviewer observed during 2001, with interview conducted before any observed interview; and

- interviewer observed during 2001, with interview observed or completed after first observed interview.

The key comparison for evaluating the impact of observation was based on the odds ratio for the third treatment to second treatment measures (i.e., the effect of observation among those interviewers who were observed at least once during 2001).

Because the observation process took place over an extended period, the entire 2001 sample was used to evaluate this intervention. An assumption made in the analysis was that there was no consistently increasing or decreasing trend during this period that would result in consistently higher or lower prevalence estimates unrelated to having been observed. A logistic regression model was used to compute adjusted odds ratios within six age groups (12 to 17, 18 to 25, 26 to 34, 25 to 49, 50 to 64, and 65 or older). Because the comparison groups were not randomly selected, additional covariates were included in the model to reduce nonrandom noise: race/ethnicity (white, black, Hispanic, and other), population density (MSAs with 1 million or more population, smaller MSAs, and other), gender, interviewer experience subsequent to January 1, 1999 (0 to 39 interviews completed, 40 to 100 interviews completed, and more than 100 interviews completed), historic response rate (three levels: greater than or equal to 75 percent, greater than or equal to 57 percent but less than 75 percent, and less than 57 percent), and historic marijuana use (five levels). The odds ratios shown in Table C.16 are based on the population-weighted average effects over the six age groups. Five lifetime use measures (cigarettes, alcohol, any illicit drug, marijuana, and cocaine) were studied with three showing odds ratios greater than or equal to 1.00 and two showing odd ratios less than 1.00. Preliminary analysis shows that the 35 to 49 age group had the only significant change, a decrease in lifetime alcohol use from 91.9 percent before observation to 87.2 percent after observation. None of the other results was statistically significant either for the individual age groups or for the combined 12 or older age group.

The second intervention (labeled "initial special training" in Table C.16) involved the development and distribution of additional guidelines reinforcing compliance with survey protocol and followed by a short telephone conference with each interviewer. For analysis purposes, the treatment was defined as having occurred on July 5th, and all interviews occurring on or after July 5th were considered to have been treated by this intervention. To avoid any seasonal impacts or the aftermath of September 11th, the sample analyzed for this intervention was limited to quarters 2 and 3.[3] The logistic modeling approach applied to the impact of field observations was repeated for this intervention. Odds ratios for comparing the after with the before intervention measures are shown in the middle rows of Table C.16. Only lifetime marijuana use among persons aged 65 or older displayed a statistically significant change, from 2.2 percent before the guidelines to 4.9 percent after the guidelines. For all persons aged 12 or older, three odds ratios were less than 1.00 and two were greater than 1.00; none was statistically significant.

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[3] Most quarter 3 interviews were completed prior to September 11th (94.3 percent) because the third month in each quarter is reserved for finishing the most difficult cases.

The third 2001 intervention was carried out during October and November as a series of weekly training sessions reviewing prepared topical guidelines that further reinforced compliance with prescribed survey procedures. Because this intervention accumulated during quarter 4, the intervention effect was assessed by comparing interviews conducted early in the quarter with those conducted later in the quarter. Because half the interviews had been completed by October 23rd, this date was chosen to separate the earlier from the later interviews. The same logistic regression modeling approach used for the earlier interventions was used here to measure and assess the impact of this intervention. The results for all persons aged 12 or older are shown in the lower third of Table C.16. For the five measures studied, all of the odds ratios were 1.00 or greater, most were close to 1.00, and none was statistically significant.

Based on these analyses, it appears that the three observation and training interventions implemented during 2001 had little appreciable impact on the reporting of lifetime substance use among persons aged 12 or older. Even though the treatment effects were small in each case and not significant, it is possible that the combined effect could be statistically significant if an expanded model were used.

The logistic regression was used to control for the nonrandom nature of the interventions; however, few statistically significant effects have been found so far. It is important to note that further analysis is ongoing and other models that included added variables to control for nonrandom noise could result in more statistically significant differences in the future.

C.3.5.2 Analysis of the Incentive and Name Change

Two methodological interventions that occurred at the beginning of the 2002 survey year (January 1, 2002) were (a) implementation of a $30 per completed interview incentive plan for all respondents, and (b) the name change from NHSDA to NSDUH. Although the potential impact of the name change had been widely discussed and evaluated in focus groups, it had not been evaluated experimentally. It was hoped that eliminating the word "abuse" from the title and adding the word "health" would result in an introduction to the survey that was less threatening, thus encouraging higher response rates and more honest reporting.

In contrast to the other changes implemented on January 1, 2002, the potential impact of offering respondent incentives was carefully evaluated in a three-level field experiment that was embedded in the 2001 survey during quarters 1 and 2. The experimental levels were (a) no incentive, (b) $20 for a completed interview, and (c) $40 for a completed interview. The initial analysis of these data showed a very positive impact on response rates, but little impact on reported substance use (OAS, 2002d). Wright et al. (2002) in subsequent analysis showed some moderate effects of incentives (when combining the $20 and $40 treatments), but not all in the same direction. Some of the same data are reevaluated (again combining the $20 and $40 treatment levels) in this appendix as a means of correcting for the incentive effect when looking at changes from 2001 to 2002.

As discussed earlier, initial analyses have indicated little, or no, impact of the three interviewer monitoring and training interventions on reported drug use. Only one of them (field observations) was implemented during the first two quarters of 2001, and it involved only a small number of interviewers. Because the incentive experiment was carefully designed with random assignment of the treatments, any impact of the field observation was equally likely to affect the three experimental treatments. If one assumes that the average effect of a $20 or $40 incentive would be roughly equivalent to the effect of a $30 incentive, the 2001 incentive experiment provides an appropriate basis for evaluating the impact of incentives and their contribution to the changes in lifetime substance use observed as of January 1, 2002. To further control for sample variation within treatment levels, response-propensity-adjusted weights were used to adjust for the higher response rates obtained by the $20 and $40 incentives. These weights then were poststratified to the 2001 age-by-gender control totals within each of the two treatment levels. The unadjusted comparisons are based on direct estimates and are presented in Table C.17. To control for additional variables that might vary across experimental incentive treatments, the data also were analyzed using a logistic regression model that incorporated race (four levels), gender, interviewer experience (three levels), number of persons selected, population density, the incentive treatment, and six age groups. Predicted marginal means were produced by incentive treatment and age group. Incentive treatment contrasts were computed for all persons aged 12 or older and for each age group (RTI, 2001, pp. 665-667). The adjusted measures are shown in Table C.18.

The analysis of lifetime use measures for cigarettes, alcohol, any illicit drug, marijuana, and cocaine presented in Tables C.17 and C.18 also found a few statistically significant differences in the reporting of lifetime use that could be attributed to the use of incentives. The unadjusted effects revealed no statistically significant incentive effects for persons 12 or older treated as a combined group, but statistically significant effects for cigarettes and cocaine for persons aged 35 to 49 and for any illicit drug, marijuana, and cocaine in the adjusted results for persons aged 35 to 39. As is clear from the tables, both the unadjusted and adjusted differences indicate significantly different patterns in the 2001 incentive effects on lifetime use depending on the age group and, to a lesser degree, on the substance. Because the age group effects switch from positive to negative, it is not surprising that the 12 or older age groups show incentive effects that are rather small and nonsignificant. One might expect that a monetary incentive should produce similar effects across all age groups. The adjusted measures have been adjusted mostly for demographic differences in the samples compared and, therefore, would seemingly be the stronger measure of the incentive effect. However, even for the adjusted incentive effects, the results appear unstable, perhaps reflecting an overall sample size in the experiment that was too small within age groups to detect relatively small differences or a need to add more variables in the model to control for more of the "nonrandom" noise.

A second approximation of the incentive effect combined with any effect of the name change and other training effects occurring as of January 1, 2002, can be approximated by limiting the data to the quarters immediately surrounding that date: quarter 4 of 2001 and quarter 1 of 2002. At most, only small temporal trends would be expected over any 6-month period, particularly in lifetime substance use. In addition, two of the three 2001 interventions were implemented before the 2001 survey's quarter 4 began. The third intervention was spread over a period of several weeks with consecutive weekly telephone training sessions implemented during October and early November 2001. Note that at the beginning of quarter 1 of 2002, all veteran interviewers attended centralized refresher training. For purposes of this analysis, the assumption of current training and training reinforcement at nearly comparable levels appears tenable for interviews conducted over this 6-month period.

Tables C.17 and C.18 show the overall January 1, 2002, effect with this measure. All five substances showed statistically significant effects for the 12 or older estimates and most within-age-group comparisons. The model-adjusted results were somewhat stronger than the unadjusted effects.

Given a fairly small sampling error in the age 12 or older results from the 2001 incentive experiment, these estimates appear more comparable with the January 1, 2002, effect with the exception of the small negative result for alcohol. For cigarettes, any illicit drug, marijuana, and cocaine, the lifetime prevalence rates for the incentive groups are slightly larger for the January 1, 2002, estimates, perhaps indicating some effect beyond the incentive. For the individual age groups, the two sets of estimates do not appear to be comparable.

C.4. Summary of Analyses

Analyses to date of the impact of the methodological improvements made in the 2002 NSDUH have provided some important insights, but a number of questions still remain.

Comparisons of the changes in lifetime prevalence with trends based on retrospective reporting demonstrate that the increases in lifetime substance use rates are not due to an increase in new initiates or a cohort shift; therefore, the 2002 data are not comparable with data from previous surveys. Concurrent with the upward shift in prevalence in 2002, there were substantial increases in interview response rates across all geographic and demographic groups. One group that experienced less of an increase in response rate was the population aged 50 or older. Analysis of the connection between the response rate increases and the prevalence increases showed that the "additional" respondents in 2002 did not solely account for the increases in prevalence, indicating that the changes in methods did affect the level of reporting of some behaviors among survey respondents. This finding was strongest in the 50 or older age group, where the increase in the response rate was small but the increase in prevalence was large.

The effect of the switch from the 1990 to the 2000 census-based weights was very small for NSDUH estimates of rates, but somewhat larger for some estimates of the number of persons using substances. Unlike the other changes implemented in 2002, the impact on the results can be precisely estimated subject to the sampling error of the data and thus do not adversely affect the ability to measure trends by themselves.

Model-based analyses were used to attempt to identify and quantify the impact on the prevalence of each of the separate NSDUH methodological improvements. Results are inconclusive at this point. The impact of each of the interviewer monitoring and training interventions in 2001 and 2002 appears to be small. More analysis will be pursued in this area by adding more predictor variables to models and by developing a single combined analysis of all three interventions to determine whether the combined effects of the interventions might be significant.

A comparison of the estimated incentive effects from the 2001 incentive experiment to the increases in prevalences between quarter 4 of 2001 and quarter 1 of 2002 shows that there is too much noise in the results of the experiment to draw conclusions from it. The results of the experiment appear to be most stable for the combined 12 or older age group because the sample is largest there. Those results mostly agree with the results of the effects of the introduction of the $30 incentive in 2002, except in the case of alcohol. Because the 2002 effects are larger than those from the 2001 experiment in the 12 or older age group, those results also may reflect other changes that occurred at the same time, such as the name change, further training of field staff, or seasonal or secular trends. Further analyses are planned.

Table C.1 Estimates of Change in Thousands of Lifetime Users

	Retrospective Estimates					Annual Estimates
	Former Users[1]		Cohort Shift[4]	New Users[5]	Net Change[6]	Net Change
Years by Age	**Aged In[2]**	**Aged Out[3]**				
Lifetime Use of Marijuana						
2001 to 2002						
12 to 17	51	1,798	-1,747	1,373	-375	318
18 to 25	1,798	1,816	-18	733	716	1,612
26 to 34	1,816	2,280	-464	65	-399	1,837
35 to 49	2,280	2,375	-95	25	-70	2,923
50 or Older	2,375	0	2,375	0	2,375	3,858
12 or Older	**8,320**	**8,269**	**51**	**2,196**	**2,247**	**10,548**
Lifetime Use of Cocaine						
2001 to 2002						
12 to 17	3	225	-221	310	89	113
18 to 25	225	508	-283	594	312	868
26 to 34	508	1,033	-526	113	-413	675
35 to 49	1,033	853	180	0	180	2,819
50 or Older	853	0	853	0	853	1,303
12 or Older	**2,623**	**2,619**	**3**	**1,017**	**1,021**	**5,779**

[1] First use earlier than within past year.

[2] Former users who aged into age group within past year.

[3] Former users who aged out of age group within past year.

[4] Former users who aged in minus those who aged out within past year.

[5] First use within past year.

[6] New users plus cohort shift.

Table C.2 2000-2002 NSDUH Quarterly Distribution of Weighted Screening and Interview Disposition

	2000				2001				2002			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Screening (%)												
Unable to Contact	2.60	2.93	2.17	2.32	2.37	2.19	2.73	2.73	2.72	2.71	2.59	2.33
Refusal	4.68	3.86	3.96	4.04	4.90	4.89	4.84	5.07	6.58	6.00	5.39	5.52
Other Incomplete	0.53	0.43	0.55	0.54	0.60	0.80	0.77	0.68	0.90	0.81	0.84	0.79
Complete	92.19	92.79	93.31	93.10	92.13	92.12	91.66	91.52	89.80	90.48	91.19	91.37
Interview (%)												
Unable to Contact	5.81	5.87	4.74	5.76	4.84	4.92	5.74	5.80	4.06	4.27	5.24	4.48
Refusal	16.28	16.24	15.38	15.60	15.67	16.11	16.70	17.55	12.25	13.56	13.08	14.23
Other Incomplete	4.23	4.72	4.82	4.83	4.89	4.93	4.86	4.69	2.91	3.53	3.85	4.26
Complete	73.68	73.17	75.06	73.82	74.60	74.04	72.70	71.97	80.78	78.64	77.83	77.03

Table C.3 2000-2002 NSDUH Quarterly Weighted Interview Response Rates, by Region, Population Density, Age, Gender, and Race/Ethnicity

	2000				2001				2002			
Domain	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Northeast	68.90	71.69	73.42	72.75	71.60	72.71	71.47	68.44	78.32	73.34	75.95	74.37
Midwest	73.51	71.85	75.09	72.47	73.73	73.90	72.56	72.84	80.67	80.81	79.34	79.29
South	77.28	75.30	77.38	75.62	75.91	74.86	73.81	73.27	82.00	80.32	78.95	78.75
West	72.41	72.48	72.79	73.05	75.90	74.04	72.19	71.98	81.08	78.19	76.15	74.07
MSA, >=1,000,000	71.05	71.39	73.91	72.23	72.33	71.61	70.03	70.29	78.61	77.30	76.60	74.14
MSA, <1,000,000	74.32	72.65	75.26	73.97	75.31	77.01	72.97	71.67	81.91	79.07	78.55	77.89
Non-MSA	77.77	77.62	77.06	76.62	78.00	74.52	77.55	75.59	83.63	80.54	79.25	81.73
12-17	82.29	82.84	81.83	83.37	82.46	83.01	82.19	81.10	91.16	89.33	90.03	89.44
18-25	77.10	77.43	77.44	77.43	77.11	76.90	74.80	73.33	87.00	84.84	84.57	84.21
26-34	73.87	76.00	75.88	73.91	76.08	75.75	73.45	74.07	81.81	78.79	78.82	78.10
35-49	73.71	72.99	74.80	74.11	73.61	73.25	71.15	71.64	79.29	77.55	79.98	78.87
50 or Older	69.28	67.66	71.79	69.43	71.48	70.19	69.93	68.18	75.78	73.29	68.40	68.98
Male	72.60	71.70	73.18	73.21	74.43	72.03	70.42	70.89	79.90	77.49	76.10	74.76
Female	74.70	74.50	76.77	74.38	74.76	75.88	74.83	72.94	81.64	79.71	79.44	79.19
Hispanic	78.30	76.89	78.67	77.97	79.48	79.34	79.65	76.68	83.27	79.94	80.79	79.93
Black	75.30	76.24	76.25	76.87	76.67	77.71	73.64	72.14	82.09	82.31	84.02	80.55
Other	72.88	72.15	74.35	72.83	73.68	72.75	71.49	71.30	80.26	77.84	76.37	76.04

MSA = metropolitan statistical area.

Table C.4 2001-2002 NSDUH Weighted Interview Response Rates, by Age Group and Number of Persons Selected Per Household

	2001					
	One Person		Two Persons		Total	
Age Group	*N*	Response Rate (%)	*N*	Response Rate (%)	*N*	Response Rate (%)
12-17	9,589	83.83	18,599	81.51	28,188	82.18
18-25	12,061	78.33	18,243	73.94	30,304	75.51
26-34	6,588	75.63	2,237	72.55	8,825	74.82
35-49	7,758	72.82	5,905	71.90	13,663	72.38
50 or Older	7,384	70.44	1,381	67.61	8,765	69.92
	2002					
	One Person		Two Persons		Total	
Age Group	*N*	Response Rate (%)	*N*	Response Rate (%)	*N*	Response Rate (%)
12-17	8,493	90.26	17,737	89.88	28,188	89.99
18-25	9,843	84.89	17,373	85.29	30,304	85.16
26-34	3,670	80.45	4,002	78.55	8,825	79.41
35-49	4,397	77.49	7,679	79.71	13,663	78.95
50 or Older	4,237	72.76	3,150	70.04	8,765	71.54

Table C.5 2000-2002 NSDUH Weighted Final Disposition of Eligible Screenings

Screening (%)	2000	2001	2002
Completed	92.84	91.86	90.72
No One at Home	1.82	1.90	2.02
Not Available	0.24	0.24	0.26
Refusal (sum of all refusal categories)	4.14	4.93	5.86
Nothing in it for me	*2.30*	*2.82*	*3.56*
No time	*0.67*	*0.79*	*0.81*
Government/Surveys too invasive	*0.71*	*0.78*	*0.85*
Gatekeeper/Household member won't allow participation	*0.02*	*0.03*	*0.05*
Confidentiality or survey legitimacy concerns	*0.13*	*0.13*	*0.22*
House too messy/Too ill	*0.04*	*0.04*	*0.09*
Other	*0.26*	*0.33*	*0.27*
Missing	*0.01*	*0.00*	*0.00*
Denied Access	0.45	0.35	0.30
Mental/Physical Handicap	0.16	0.20	0.20
Spanish Language Barrier	0.05	0.09	0.05
Other Language Barrier	0.27	0.39	0.35
Electronic Screener Problem	0.00	0.00	0.00
Other Eligible	0.02	0.04	0.23

Table C.6 2000-2002 NSDUH Weighted Final Disposition of Eligible Interviews

Interview (%)	2000	2001	2002
Completed	73.93	73.31	78.56
No One at Home	2.02	2.00	1.81
Not Available	3.52	3.30	2.71
Parent Refusal	0.88	0.92	0.55
Refusal (sum of all refusal categories)	14.99	15.60	12.73
Nothing in it for me	*6.47*	*7.06*	*5.52*
No time	*4.22*	*4.53*	*3.79*
Government/Surveys too invasive	*1.95*	*1.88*	*1.46*
Gatekeeper/Household member won't allow participation	*0.32*	*0.41*	*0.58*
Confidentiality or survey legitimacy concerns	*0.34*	*0.37*	*0.42*
House too messy/Too ill	*0.32*	*0.28*	*0.28*
Other	*0.81*	*0.70*	*0.50*
Missing	*0.57*	*0.36*	*0.18*
Denied Access	0.01	0.03	0.00
Mental/Physical Handicap	2.57	2.43	1.75
Spanish Language Barrier	0.08	0.17	0.19
Other Language Barrier	1.06	1.30	1.09
Electronic Screener Problem	0.01	0.01	0.01
Other Eligible	0.92	0.94	0.61

Table C.7 Prevalence and Marginal Substance Use, Dependence and Abuse, and Serious Mental Illness Rates among Persons Aged 12 or Older, by Year

Measure	2001	2002	Marginal
Any Illicit Drug (Lifetime)	41.2	46.0	128.2
Any Illicit Drug (Past Year)	12.5	14.9	56.0
Any Illicit Drug (Past Month)	7.0	8.3	30.6
Marijuana (Lifetime)	36.4	40.4	108.9
Marijuana (Past Year)	9.3	11.0	40.1
Marijuana (Past Month)	5.3	6.2	21.6
Cocaine (Lifetime)	12.1	14.4	53.8
Cocaine (Past Year)	1.8	2.5	14.5
Cocaine (Past Month)	0.7	0.9	4.3
Cigarettes (Lifetime)	66.8	69.1	108.5
Cigarettes (Past Year)	29.0	30.3	52.6
Cigarettes (Past Month)	24.9	26.0	44.8
Alcohol (Lifetime)	81.3	83.1	113.9
Alcohol (Past Year)	63.3	66.1	114.1
Alcohol (Past Month)	47.9	51.0	104.1
Illicit Drug Dependence or Abuse	2.5	3.3	17.0
Illicit Drug Specialty Treatment	0.5	0.6	2.3
Alcohol or Drug Dependence or Abuse	7.4	9.4	43.7
Serious Mental Illness (SMI)[1]	7.3	8.3	26.5
Perceived Risk of Using Marijuana	42.2	38.3	-28.5

Note: Both 2001 and 2002 prevalence estimates used sample weights based on projections from the 2000 census. The weighted overall response rates for persons aged 12 or older were 0.6734 for 2001 and 0.7127 for 2002, for a difference of 0.0393.

[1] Only measured for persons aged 18 or older.

Table C.8 Prevalence and Marginal Substance Use, Dependence and Abuse, and Serious Mental Illness Rates among Youths Aged 12 to 17, by Year

Measure	2001	2002	Marginal
Any Illicit Drug (Lifetime)	28.4	30.9	73.7
Any Illicit Drug (Past Year)	20.8	22.2	46.2
Any Illicit Drug (Past Month)	10.8	11.6	25.3
Marijuana (Lifetime)	19.7	20.6	36.0
Marijuana (Past Year)	15.1	15.8	27.8
Marijuana (Past Month)	7.9	8.2	13.3
Cocaine (Lifetime)	2.3	2.7	9.6
Cocaine (Past Year)	1.5	2.1	12.4
Cocaine (Past Month)	0.4	0.6	4.0
Cigarettes (Lifetime)	33.5	33.3	29.9
Cigarettes (Past Year)	20.1	20.3	23.7
Cigarettes (Past Month)	12.9	13.0	14.7
Alcohol (Lifetime)	42.8	43.4	53.7
Alcohol (Past Year)	33.8	34.6	48.3
Alcohol (Past Month)	17.2	17.6	24.5
Illicit Drug Dependence or Abuse	4.7	5.6	21.0
Illicit Drug Specialty Treatment	0.5	0.6	2.3
Alcohol or Drug Dependence or Abuse	7.8	8.9	27.7
Serious Mental Illness (SMI)[1]	--	--	--
Perceived Risk of Using Marijuana	35.7	32.4	-24.1

Note: Both 2001 and 2002 prevalence estimates used sample weights based on projections from the 2000 census. The weighted overall response rates for persons aged 12 to 17 were 0.7549 for 2001 and 0.8164 for 2002, for a difference of 0.0615.

[1] Only measured for persons aged 18 or older.

Table C.9 Prevalence and Marginal Substance Use, Dependence and Abuse, and Serious Mental Illness Rates among Persons Aged 18 to 25, by Year

Measure	2001	2002	Marginal
Any Illicit Drug (Lifetime)	55.1	59.8	101.1
Any Illicit Drug (Past Year)	31.6	35.5	69.7
Any Illicit Drug (Past Month)	18.6	20.2	34.2
Marijuana (Lifetime)	49.4	53.8	92.4
Marijuana (Past Year)	26.4	29.8	59.7
Marijuana (Past Month)	15.8	17.3	30.5
Cocaine (Lifetime)	12.8	15.4	38.2
Cocaine (Past Year)	5.6	6.7	16.4
Cocaine (Past Month)	1.9	2.0	2.9
Cigarettes (Lifetime)	68.7	71.2	93.1
Cigarettes (Past Year)	46.6	49.0	70.1
Cigarettes (Past Month)	38.7	40.8	59.2
Alcohol (Lifetime)	84.6	86.7	105.1
Alcohol (Past Year)	74.9	77.8	103.3
Alcohol (Past Month)	58.3	60.5	79.8
Illicit Drug Dependence or Abuse	7.1	8.2	17.9
Illicit Drug Specialty Treatment	0.8	0.9	1.8
Alcohol or Drug Dependence or Abuse	18.3	21.7	51.6
Serious Mental Illness (SMI)[1]	11.8	13.2	25.5
Perceived Risk of Using Marijuana	27.4	23.5	-10.7

Note: Both 2001 and 2002 prevalence estimates used sample weights based on projections from the 2000 census. The weighted overall responses rate for persons aged 18 to 25 were 0.6936 for 2001 and 0.7726 for 2002, for a difference of 0.0790.

[1] Only measured for persons aged 18 or older.

Table C.10 Prevalence and Marginal Substance Use, Dependence and Abuse, and Serious Mental Illness Rates among Persons Aged 26 to 49, by Year

Measure	2001	2002	Marginal
Any Illicit Drug (Lifetime)	55.9	61.2	140.1
Any Illicit Drug (Past Year)	12.6	16.0	66.6
Any Illicit Drug (Past Month)	7.0	8.9	37.2
Marijuana (Lifetime)	51.2	55.8	124.2
Marijuana (Past Year)	8.9	11.1	43.8
Marijuana (Past Month)	5.2	6.3	22.7
Cocaine (Lifetime)	20.5	23.9	74.5
Cocaine (Past Year)	2.0	2.9	16.3
Cocaine (Past Month)	0.9	1.1	4.1
Cigarettes (Lifetime)	72.2	74.7	112.2
Cigarettes (Past Year)	33.9	35.4	57.7
Cigarettes (Past Month)	29.9	31.4	53.7
Alcohol (Lifetime)	89.3	91.0	116.3
Alcohol (Past Year)	73.1	76.1	120.7
Alcohol (Past Month)	57.0	60.3	109.4
Illicit Drug Dependence or Abuse	2.2	2.7	10.1
Illicit Drug Specialty Treatment	0.6	0.8	3.8
Alcohol or Drug Dependence or Abuse	7.7	10.4	50.6
Serious Mental Illness (SMI)[1]	7.9	9.5	33.3
Perceived Risk of Using Marijuana	38.2	34.9	-14.2

Note: Both 2001 and 2002 prevalence estimates used sample weights based on projections from the 2000 census. The weighted overall response rates for persons aged 26 to 49 were 0.6725 for 2001 and 0.7177 for 2002, for a difference of 0.0452.

[1] Only measured for persons aged 18 or older.

Table C.11 Prevalence and Marginal Substance Use, Dependence and Abuse, and Serious Mental Illness Rates among Persons Aged 50 or Older, by Year

Measure	2001	2002	Marginal
Any Illicit Drug (Lifetime)	20.8	26.1	534.2
Any Illicit Drug (Past Year)	2.3	3.3	99.2
Any Illicit Drug (Past Month)	1.2	1.9	69.0
Marijuana (Lifetime)	17.3	21.8	453.2
Marijuana (Past Year)	1.1	1.9	78.6
Marijuana (Past Month)	0.6	1.1	49.0
Cocaine (Lifetime)	4.0	5.6	159.0
Cocaine (Past Year)	0.2	0.4	19.6
Cocaine (Past Month)	0.1	0.1	0.1
Cigarettes (Lifetime)	69.6	72.4	340.8
Cigarettes (Past Year)	18.6	19.7	125.2
Cigarettes (Past Month)	16.6	17.4	94.1
Alcohol (Lifetime)	81.9	84.2	304.7
Alcohol (Past Year)	55.4	58.7	375.1
Alcohol (Past Month)	41.8	45.8	429.3
Illicit Drug Dependence or Abuse	0.3	0.6	29.4
Illicit Drug Specialty Treatment	0.1	0.2	9.8
Alcohol or Drug Dependence or Abuse	2.4	3.3	89.6
Serious Mental Illness (SMI)[1]	4.8	4.9	14.5
Perceived Risk of Using Marijuana	55.5	50.6	-419.1

Note: Both 2001 and 2002 prevalence estimates used sample weights based on projections from the 2000 census. The weighted overall response rates for persons aged 50 or older were 0.6423 for 2001 and 0.6490 for 2002, for a difference of 0.0067.

[1] Only measured for persons aged 18 or older.

Table C.12 1999-2002 NSDUH Weighted Population Distributions

Characteristic	1999	2000	2001	2002
Gender				
Male	46.21	47.16	46.97	47.77
Female	53.79	52.84	53.03	52.23
Race				
American Indian or Alaska Native	1.17	1.30	1.84	3.41
Asian or Pacific Islander	3.80	3.93	4.16	3.89
Black	12.26	13.10	12.72	13.02
White	82.78	81.68	81.28	79.67
Hispanic Origin				
Hispanic	10.73	10.99	11.73	12.74
Non-Hispanic	89.27	89.01	88.27	87.26
Population Density				
Segment in MSA w/ >= 1 Million Persons	43.23	43.41	42.31	43.71
Segment in MSA w/ < 1 Million Persons	32.25	32.87	33.91	33.33
Segment Not in an MSA	24.52	23.72	23.78	22.96
Marital Status (Adults 26-59)				
Married	68.68	68.33	68.44	65.03
Widowed	2.00	1.95	1.97	1.85
Divorced or Separated	14.98	15.10	14.65	16.76
Never Been Married	14.33	14.62	14.93	16.35
Education (Adults 26-59)				
Less Than High School	13.59	13.46	13.29	13.69
High School Graduate	34.12	32.67	31.28	31.54
Some College	25.25	24.96	25.24	25.47
College Graduate	27.03	28.92	30.19	29.30
Employment Status (Adults 26-59)				
Full Time	72.23	72.56	71.01	70.95
Part Time	10.49	10.12	10.57	10.54
Unemployed	2.20	1.87	2.44	3.65
Other (Not in Labor Force)	15.08	15.45	15.98	14.86
Family Income				
$20,000 or More	77.36	79.03	80.37	80.06
Less Than $20,000	22.64	20.97	19.63	19.94

MSA = metropolitan statistical area.

Table C.13 Estimates of Lifetime and Past Month Use Counts and Rates of Any Illicit Drug, Marijuana, Cocaine, Cigarettes, and Alcohol

	1990 Census Weights	2000 Census Weights	
	2001	2001	2002
Measure	**Lifetime Use Counts (in Thousands), by Year**		
Any Illicit Drug	94,140	95,621	108,250
Marijuana	83,272	84,398	94,946
Cocaine	27,788	28,131	33,910
Cigarettes	151,638	155,003	162,550
Alcohol	184,402	188,687	195,450
	Lifetime Use Rates (in %), by Year		
Any Illicit Drug	41.72	41.22	46.04
Marijuana	36.91	36.38	40.38
Cocaine	12.32	12.13	14.42
Cigarettes	67.20	66.81	69.13
Alcohol	81.73	81.33	83.12
	Past Month Use Counts (in Thousands), by Year		
Any Illicit Drug	15,910	16,220	19,522
Marijuana	12,122	12,373	14,584
Cocaine	1,676	1,700	2,020
Cigarettes	56,288	57,717	61,136
Alcohol	109,030	111,180	119,820
	Past Month Use Rates (in %), by Year		
Any Illicit Drug	7.05	6.99	8.30
Marijuana	5.37	5.33	6.20
Cocaine	0.74	0.73	0.86
Cigarettes	24.95	24.88	26.00
Alcohol	48.32	47.92	50.96

Table C.14 Census Effect, by Race Category: 2001 Estimates of Lifetime and Past Month Use Counts and Rates of Any Illicit Drug, Marijuana, Cocaine, Cigarettes, and Alcohol Based on 1990 Versus 2000 Census Projections

Measure	Census Weight	2001 Lifetime Use Counts (in Thousands), by Race			
		White	Black	Hispanic	Other
Any Illicit Drug	1990	73,339	10,154	7,868	2,779
	2000	72,834	10,422	9,027	3,338
Marijuana	1990	66,090	8,698	6,318	2,167
	2000	65,610	8,925	7,270	2,594
Cocaine	1990	22,292	2,257	2,654	585
	2000	22,084	2,318	3,018	711
Cigarettes	1990	118,934	14,723	13,302	4,679
	2000	119,449	15,018	15,082	5,454
Alcohol	1990	141,439	18,966	17,491	6,507
	2000	142,080	19,488	19,709	7,410
		2001 Lifetime Use Rates (in %), by Race			
Any Illicit Drug	1990	44.55	38.91	31.90	27.05
	2000	43.97	38.74	32.53	28.52
Marijuana	1990	40.15	33.33	25.62	21.09
	2000	39.61	33.18	26.19	22.16
Cocaine	1990	13.54	8.65	10.76	5.69
	2000	13.33	8.61	10.87	6.08
Cigarettes	1990	72.25	56.42	53.94	45.55
	2000	72.12	55.83	54.34	46.59
Alcohol	1990	85.93	72.68	70.92	63.34
	2000	85.78	72.44	71.01	63.30
		2001 Past Month Use Counts (in Thousands), by Race			
Any Illicit Drug	1990	11,884	1,995	1,577	455
	2000	11,815	2,055	1,829	521
Marijuana	1990	9,284	1,477	1,027	334
	2000	9,226	1,540	1,227	380
Cocaine	1990	1,131	242	256	48
	2000	1,126	222	306	45
Cigarettes	1990	43,073	6,239	5,156	1,820
	2000	42,946	6,478	6,042	2,251
Alcohol	1990	86,643	9,212	9,751	3,423
	2000	86,733	9,320	11,114	4,014
		2001 Past Month Use Rates (in %), by Race			
Any Illicit Drug	1990	7.22	7.64	6.40	4.43
	2000	7.13	7.64	6.59	4.45
Marijuana	1990	5.64	5.66	4.17	3.26
	2000	5.57	5.72	4.42	3.25
Cocaine	1990	0.69	0.93	1.04	0.46
	2000	0.68	0.83	1.10	0.39
Cigarettes	1990	26.17	23.91	20.91	17.72
	2000	25.93	24.08	21.77	19.23
Alcohol	1990	52.64	35.30	39.54	33.32
	2000	52.36	34.64	40.04	34.29

Table C.15 Census Effect, by Age Category: 2001 Estimates of Lifetime and Past Month Use Counts and Rates of Any Illicit Drug, Marijuana, Cocaine, Cigarettes, and Alcohol Based on 1990 Versus 2000 Census Projections

Measure	Census Weight	2001 Counts (in Thousands), by Age Group				
		12-17	18-25	26-34	35-49	50 or Older
Any Illicit Drug	1990	6,691	16,382	17,433	37,364	16,270
	2000	6,910	16,805	18,432	37,448	16,026
Marijuana	1990	4,642	14,736	15,671	34,601	13,623
	2000	4,786	15,068	16,503	34,677	13,364
Cocaine	1990	533	3,820	5,207	15,010	3,218
	2000	557	3,918	5,514	15,013	3,129
Cigarettes	1990	7,925	20,354	22,944	47,534	52,881
	2000	8,148	20,948	24,393	47,763	53,752
Alcohol	1990	10,116	25,063	29,105	57,862	62,256
	2000	10,418	25,809	31,071	58,170	63,219
		2001 Lifetime Use Rates (in %), by Age Group				
Any Illicit Drug	1990	28.35	55.56	53.31	58.18	21.51
	2000	28.38	55.12	52.49	57.76	20.76
Marijuana	1990	19.67	49.98	47.92	53.88	18.01
	2000	19.66	49.42	46.99	53.48	17.31
Cocaine	1990	2.26	12.96	15.92	23.37	4.26
	2000	2.29	12.85	15.70	23.15	4.05
Cigarettes	1990	33.58	69.03	70.17	74.02	69.92
	2000	33.46	68.70	69.46	73.66	69.63
Alcohol	1990	42.87	85.00	89.01	90.10	82.31
	2000	42.78	84.65	88.48	89.71	81.90
		2001 Past Month Use Counts (in Thousands), by Age Group				
Any Illicit Drug	1990	2,556	5,540	2,865	4,033	917
	2000	2,626	5,662	3,022	4,003	906
Marijuana	1990	1,889	4,711	2,216	2,845	460
	2000	1,931	4,826	2,331	2,833	453
Cocaine	1990	106	566	359	560	85
	2000	110	581	386	540	82
Cigarettes	1990	3,058	11,541	9,972	19,071	12,645
	2000	3,143	11,879	10,599	19,268	12,827
Alcohol	1990	4,077	17,333	19,575	36,042	32,002
	2000	4,190	17,779	20,801	36,152	32,257
		2001 Past Month Use Rates (in %), by Age Group				
Any Illicit Drug	1990	10.83	18.79	8.76	6.28	1.21
	2000	10.78	18.57	8.60	6.17	1.17
Marijuana	1990	8.00	15.98	6.78	4.43	0.61
	2000	7.93	15.83	6.64	4.37	0.59
Cocaine	1990	0.45	1.92	1.10	0.87	0.11
	2000	0.45	1.91	1.10	0.83	0.11
Cigarettes	1990	12.96	39.14	30.50	29.70	16.72
	2000	12.91	38.96	30.18	29.72	16.62
Alcohol	1990	17.27	58.79	59.86	56.12	42.31
	2000	17.21	58.31	59.23	55.76	41.79

Table C.16 Adjusted Odds Ratios for Reported Lifetime Use for Three 2001 Field Interventions

Field Intervention	Lifetime Use Measure	Adjusted Odds Ratio	*P* Value
Field Observation	Cigarettes	1.01	0.267
	Alcohol	0.82	0.198
	Any Illicit Drug	1.10	0.621
	Marijuana	1.13	0.665
	Cocaine	0.88	0.279
Initial Special Training (Early July 2001)	Cigarettes	1.02	0.757
	Alcohol	1.00	0.878
	Any Illicit Drug	0.94	0.225
	Marijuana	0.91	0.183
	Cocaine	0.99	0.961
Series of Follow-Up Training Sessions (October and November 2001)	Cigarettes	1.03	0.666
	Alcohol	1.09	0.303
	Any Illicit Drug	1.00	0.984
	Marijuana	1.03	0.745
	Cocaine	1.12	0.454

Table C.17 Unadjusted Measures of the Incentive Effect and the January 1, 2002, Effect

Age	Lifetime Use Measure	2001 Incentive Experiment			January 1, 2002, Effect		
		$0	$20 or $40	Incentive Effect	Quarter 4 2001	Quarter 1 2002	Combined Effect
12 or Older	Cigarettes	65.65	67.84	2.19	66.29	69.39	3.10[b]
12 or Older	Alcohol	81.50	80.92	-0.58	81.38	84.12	2.75[b]
12 or Older	Any Illicit Drug	39.84	43.80	3.96	41.03	45.94	4.91[b]
12 or Older	Marijuana	34.97	38.75	3.78	36.28	40.20	3.92[b]
12 or Older	Cocaine	10.55	12.73	2.18	12.35	14.11	1.75[b]
12 to 17	Cigarettes	36.33	34.16	-2.17	31.51	34.22	2.71[a]
12 to 17	Alcohol	48.06	43.40	-4.67	41.79	43.75	1.96
12 to 17	Any Illicit Drug	31.16	30.19	-0.97	26.95	30.19	3.24[b]
12 to 17	Marijuana	20.69	19.49	-1.19	19.12	20.43	1.31
12 to 17	Cocaine	2.13	2.55	0.42	2.28	2.84	0.56
18 to 25	Cigarettes	68.70	64.04	-4.66	69.66	72.97	3.30[b]
18 to 25	Alcohol	85.01	82.77	-2.24	83.93	88.09	4.16[b]
18 to 25	Any Illicit Drug	53.24	55.38	2.13	55.95	61.19	5.24[b]
18 to 25	Marijuana	46.76	48.02	1.26	50.11	54.39	4.28[b]
18 to 25	Cocaine	12.63	12.21	-0.41	13.93	15.54	1.61
26 to 34	Cigarettes	62.63	69.82	7.20	68.80	71.93	3.13
26 to 34	Alcohol	86.56	90.21	3.66	85.71	91.32	5.61[b]
26 to 34	Any Illicit Drug	51.25	58.81	7.56	49.71	57.71	8.00[b]
26 to 34	Marijuana	44.19	53.70	9.51	43.98	52.00	8.03[b]
26 to 34	Cocaine	15.62	18.10	2.48	14.01	18.26	4.25[b]
35 to 49	Cigarettes	67.77	74.76	6.99[a]	73.70	76.27	2.57
35 to 49	Alcohol	89.62	92.10	2.48	90.64	91.82	1.17
35 to 49	Any Illicit Drug	52.13	64.52	12.39	58.25	64.52	6.27[b]
35 to 49	Marijuana	48.32	60.38	12.05	54.09	60.16	6.07[b]
35 to 49	Cocaine	16.57	25.16	8.59[a]	23.58	27.72	4.14[b]
50 to 64	Cigarettes	76.04	74.16	-1.87	75.31	77.65	2.35
50 to 64	Alcohol	86.47	84.40	-2.07	88.79	88.51	-0.28
50 to 64	Any Illicit Drug	33.72	29.46	-4.27	32.03	34.52	2.49
50 to 64	Marijuana	31.60	25.95	-5.66	28.53	27.78	-0.74
50 to 64	Cocaine	7.39	5.60	-1.79	7.64	6.22	-1.42
65 or Older	Cigarettes	69.74	72.05	2.31	59.21	63.64	4.43
65 or Older	Alcohol	75.17	70.69	-4.48	75.06	80.40	5.35
65 or Older	Any Illicit Drug	6.33	6.18	-0.15	7.03	10.41	3.37
65 or Older	Marijuana	3.72	3.65	-0.07	3.65	7.15	3.50[a]
65 or Older	Cocaine	2.00	0.24	-1.76	0.83	1.09	0.26

[a] Effect is statistically significant at the 0.05 level.

[b] Effect is statistically significant at the 0.01 level.

Table C.18 Adjusted Measures of the Incentive Effect and the January 1, 2002, Effect

Age	Lifetime Use Measure	2001 Incentive Experiment			January 1, 2002 Effect		
		$0	$20 or $40	Incentive Effect	Quarter 4 2001	Quarter 1 2002	Combined Effect
12 or Older	Cigarettes	65.92	67.59	1.66	66.68	69.25	2.57[b]
12 or Older	Alcohol	81.48	80.95	-0.53	81.26	83.18	1.92[b]
12 or Older	Any Illicit Drug	40.16	43.46	3.30	41.16	46.09	4.92[b]
12 or Older	Marijuana	35.29	38.42	3.13	36.33	40.43	4.10[b]
12 or Older	Cocaine	10.51	12.77	2.25	12.02	14.54	2.52[b]
12 to 17	Cigarettes	37.92	33.47	-4.46	34.35	34.43	0.09
12 to 17	Alcohol	50.22	43.71	-6.51	44.18	45.01	0.83
12 to 17	Any Illicit Drug	32.41	30.22	-2.19	28.80	31.56	2.77[b]
12 to 17	Marijuana	21.59	19.48	-2.11	20.14	21.27	1.13[a]
12 to 17	Cocaine	2.17	2.56	0.39	2.36	2.82	0.47[a]
18 to 25	Cigarettes	69.88	65.09	-4.79	69.98	72.57	2.60[b]
18 to 25	Alcohol	86.26	84.32	-1.94	85.69	87.63	1.94[b]
18 to 25	Any Illicit Drug	55.12	56.53	1.42	56.28	61.06	4.78[b]
18 to 25	Marijuana	48.75	49.29	0.54	50.94	55.33	4.39[b]
18 to 25	Cocaine	12.97	12.63	-0.34	13.32	16.11	2.79[b]
26 to 34	Cigarettes	63.73	71.18	7.45	70.67	74.45	3.78[b]
26 to 34	Alcohol	87.15	90.69	3.54	89.23	91.00	1.77[a]
26 to 34	Any Illicit Drug	53.31	59.93	6.62	53.98	59.64	5.66[b]
26 to 34	Marijuana	46.37	54.95	8.58	48.65	53.76	5.12[b]
26 to 34	Cocaine	15.87	18.47	2.60	15.91	18.02	2.12[a]
35 to 49	Cigarettes	68.88	74.16	5.28	73.49	75.80	2.31[b]
35 to 49	Alcohol	89.60	91.83	2.23	89.61	91.41	1.80[b]
35 to 49	Any Illicit Drug	52.24	63.64	11.40[a]	57.45	62.56	5.11[b]
35 to 49	Marijuana	48.27	59.35	11.08[a]	53.17	57.49	4.32[b]
35 to 49	Cocaine	16.11	24.71	8.60[a]	22.90	27.45	4.54[b]
50 to 64	Cigarettes	74.96	73.24	-1.72	73.68	76.68	3.00[a]
50 to 64	Alcohol	85.44	83.68	-1.76	86.07	88.23	2.16[a]
50 to 64	Any Illicit Drug	32.83	28.52	-4.32	31.12	37.96	6.84[b]
50 to 64	Marijuana	30.69	24.99	-5.70	26.85	32.91	6.06[b]
50 to 64	Cocaine	7.19	5.50	-1.69	6.51	8.99	2.48[b]
65 or Older	Cigarettes	67.73	70.93	3.20	60.66	63.71	3.06
65 or Older	Alcohol	73.30	70.34	-2.96	73.16	75.96	2.80
65 or Older	Any Illicit Drug	6.11	6.13	0.02	6.14	8.94	2.80[b]
65 or Older	Marijuana	3.62	3.66	0.04	3.69	5.49	1.80[a]
65 or Older	Cocaine	2.03	0.25	-1.78	0.50	0.90	0.40

[a] Effect is statistically significant at the 0.05 level.

[b] Effect is statistically significant at the 0.01 level.

Appendix D: Key Definitions, 2002

This appendix is essentially a glossary providing definitions for many of the measures used in the 2002 National Survey on Drug Use and Health (NSDUH). Where relevant, cross-references are included for related terms. Other information regarding interpretation of the data also is included and covers such topics as decision rules with regard to rounding.

Abuse	A respondent was defined with abuse of a substance if he or she met one or more of the four criteria for abuse included in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV) (American Psychiatric Association [APA], 1994) and did not meet the definition for dependence for that substance. Additional criteria for alcohol and marijuana abuse are that if respondents reported a specific number of days that they used these drugs in the past 12 months, they must have used these drugs on 6 or more days in that period. These questions have been included in the survey since 2000. SEE: "Need for Illicit Drug or Alcohol Treatment" and "Prevalence."
Adult Education	SEE: "Education."
Age	Age of the respondent was defined as "age at time of interview." The interview program calculated the respondent's age from the date of birth and interview date.
Alcohol	Measures of use of alcohol in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last drank an alcoholic beverage?" Feeder question: "The next questions are about alcoholic beverages, such as, [beer, wine, liquor, brandy, and mixed drinks]... Have you ever, even once, had a drink of an alcoholic beverage?"[1] SEE: "Current Use," "Lifetime Use," "Past Month Use," "Past Year Use," "Prevalence," and "Recency of Use."

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[1] A feeder question is one that must be answered before respondents will be asked a subsequent question. For example, respondents must first report that they had ever had a drink of an alcoholic beverage in order to be asked when they last drank an alcoholic beverage.

American Indian or Alaska Native	American Indian or Alaska Native only, not of Hispanic, Latino, or Spanish origin (including North American, Central American, or South American Indian); does not include respondents reporting two or more races. (Respondents reporting that they were American Indians or Alaska Natives and of Hispanic, Latino, or Spanish origin were classified as Hispanic.) SEE: "Hispanic" and "Race/Ethnicity."
Any Illicit Drug	This includes marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP], lysergic acid diethylamide [LSD], and Ecstasy [MDMA]), heroin, or any prescription-type psychotherapeutic used nonmedically. SEE: "Current Use," "Lifetime Use," "Past Month Use," "Past Year Use," "Prevalence," and "Recency of Use."
Any Illicit Drug Other Than Marijuana	This includes cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP], lysergic acid diethylamide [LSD], and Ecstasy [MDMA]), heroin, or any prescription-type psychotherapeutic used nonmedically. This measure includes marijuana users who used any of the above drugs in addition to using marijuana, as well as users of those drugs who have not used marijuana. SEE: "Current Use," "Lifetime Use," "Past Month Use," "Past Year Use," "Prevalence," and "Recency of Use."
Any Use of Tobacco	This indicates use of any tobacco product: cigarettes, chewing tobacco, snuff, cigars, and pipe tobacco. Any tobacco use in the past year includes past month pipe tobacco use. Any tobacco use in the past year does not include use of pipe tobacco more than 30 days ago but within 12 months of the interview because the survey did not capture this information. Use of specialty cigarettes (i.e., bidis, clove cigarettes) is not included in any of the tobacco use measures.
Asian	Asian only, not of Hispanic, Latino, or Spanish origin; does not include respondents reporting two or more races. (Respondents reporting that they were Asian and of Hispanic, Latino, or Spanish origin were classified as Hispanic.) Specific Asian groups that

were asked about were Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, and "Other Asian."

SEE: "Hispanic" and "Race/Ethnicity."

Binge Use of Alcohol

Binge use of alcohol was defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days.

Feeder question: "How long has it been since you last drank an alcoholic beverage?"

SEE: "Alcohol" and "Heavy Use of Alcohol."

Black

Black/African American only, not of Hispanic, Latino, or Spanish origin; does not include respondents reporting two or more races. (Respondents reporting that they were black or African American and of Hispanic, Latino, or Spanish origin were classified as Hispanic.)

SEE: "Hispanic" and "Race/Ethnicity."

Cigarettes

Measures of use of cigarettes (not including specialty cigarettes such as bidis or clove cigarettes) in the respondent's lifetime, the past year, and the past month were developed from responses to the questions about cigarette use in the past 30 days and the recency of use (if not in the past 30 days): "Now think about the past 30 days – that is, from [DATEFILL] up to and including today. During the past 30 days, have you smoked part or all of a cigarette?" and "How long has it been since you last smoked part or all of a cigarette?"

Feeder question: "These questions are about tobacco products. This includes cigarettes, chewing tobacco, snuff, cigars, and pipe tobacco. The first questions are about cigarettes only. Have you ever smoked part or all of a cigarette?"

SEE: "Cigars," "Current Use," "Lifetime Use," "Past Month Use," "Past Year Use," "Prevalence," "Recency of Use," and "Smokeless Tobacco Use."

Cigars

Measures of use of cigars (including cigarillos and little cigars) in the respondent's lifetime, the past year, and the past month were developed from responses to the questions about cigar use in the past 30 days and the recency of use (if not in the past 30 days): "Now think about the past 30 days – that is, from [DATEFILL] up to and including today. During the past 30 days, have you smoked part or all of any type of cigar?" and "How long has it been since you last smoked part or all of any type of cigar?"

Feeder question: "These next questions are about smoking cigars. By cigars we mean any kind, including big cigars, cigarillos, and even little cigars that look like cigarettes. Have you ever smoked part or all of any type of cigar?"

SEE: "Cigarettes," "Current Use," "Lifetime Use," "Past Month Use," "Past Year Use," "Prevalence," "Recency of Use," and "Smokeless Tobacco Use."

Cocaine

Measures of use of cocaine in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last used any form of cocaine?"

Feeder question: "These questions are about cocaine, including all the different forms of cocaine such as powder, *crack*, free base, and coca paste. Have you ever, even once, used any form of cocaine?"

SEE: "Crack," "Current Use," "Lifetime Use," "Past Month Use," "Past Year Use," "Prevalence," and "Recency of Use."

College Enrollment Status

Respondents aged 18 to 22 were classified as full-time undergraduate students or as some other status (including part-time students, students in other grades, or nonstudents). Respondents were classified as full-time students if they reported that they were attending (or will be attending) their first through fourth year of college or university and that they were (or will be) a full-time student. Respondents whose current enrollment status was unknown were excluded from the analysis.

County Type

Counties were grouped based on the "Rural-Urban Continuum Codes" developed by the U.S. Department of Agriculture (1998). Each county is in either a metropolitan statistical area (MSA) or outside of an MSA (also see Butler & Beale, 1994). Counties in New England were defined using New England County Metropolitan Areas (NECMA). Large metropolitan areas have a population of 1 million or more. Small metropolitan areas have a population fewer than 1 million. Nonmetropolitan areas are outside of MSAs and include urbanized counties with a population of 20,000 or more in urbanized areas, less urbanized counties with a

	population of at least 2,500 but fewer than 20,000 in urbanized areas, and completely rural counties with a population of fewer than 2,500 in urbanized areas.
Crack	Measures of use of crack cocaine in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last used *crack*?" Feeder questions: "These questions are about cocaine, including all the different forms of cocaine such as powder, *crack*, free base, and coca paste. Have you ever, even once, used any form of cocaine?" "The next questions are about *crack* in rock or chunk form, and not the other forms of cocaine. Have you ever, even once, used *crack*?" SEE: "Cocaine," "Current Use," "Lifetime Use," "Past Month Use," "Past Year Use," "Prevalence," and "Recency of Use."
Current Use	Any reported use of a specific drug in the past 30 days. SEE: "Lifetime Use," "Past Month Use," "Past Year Use," "Prevalence," and "Recency of Use."
Delinquent Behavior	Adolescents aged 12 to 17 were asked a series of six questions: "During the past 12 months, how many times have you . . . stolen or tried to steal anything worth more than $50?" "sold illegal drugs?" "attacked someone with the intent to seriously hurt them?" "gotten into a serious fight at school or work?" "took part in a fight where a group of your friends fought against another group?" and "carried a handgun?" SEE: "Gang Fighting," "Prevalence," and "Stealing."
Dependence	A respondent was defined with dependence on a substance if he or she met three out of seven dependence criteria (for substances that included questions to measure a withdrawal criterion) or three out of six criteria (for substances that did not include withdrawal questions) for that substance, based on criteria included in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV) (APA, 1994). Additional criteria for alcohol and marijuana dependence since 2000 are that if respondents reported a specific

number of days that they used these drugs in the past 12 months, they must have used these drugs on 6 or more days in that period.

SEE: "Need for Illicit Drug or Alcohol Treatment" and "Prevalence."

Driving Under the Influence

Respondents were asked whether in the past 12 months they had driven a vehicle while under the influence of alcohol and illegal drugs used together, alcohol only, or illegal drugs only.

SEE: "Prevalence."

Ecstasy

Measures of use of Ecstasy or MDMA (methylenedioxy-n-methylamphetamine) in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last used *Ecstasy*, also known as MDMA?"

SEE: "Current Use," "Hallucinogens," "Lifetime Use," "LSD," "Past Month Use," "Past Year Use," "PCP," "Prevalence," and "Recency of Use."

Education

This is the measure of educational attainment among respondents who are aged 18 or older. It is based on respondents' reports of their highest grade or year of school that they completed. Response alternatives were presented in terms of single years of education, ranging from 0 if respondents never attended school to 17 if respondents completed 5 or more years at the college or university level. Respondents were classified into four categories based on their answers: less than high school, high school graduate, some college, and college graduate. Persons who completed postgraduate work were classified as college graduates.

Employment

Respondents were asked to report whether they worked in the week prior to the interview, and if not, whether they had a job despite not working in the past week. Respondents who worked in the past week or who reported having a job despite not working were asked whether they usually work 35 or more hours per week. Respondents who did not work in the past week but had a job were asked to look at a card that described why they did not work in the past week despite having a job. Respondents who did not have a job in the past week were asked to look at a different card that described why they did not have a job in the past week.

	Full-time	"Full-time" in the tables includes respondents who usually work 35 or more hours per week and who worked in the past week or had a job despite not working in the past week.
	Part-time	"Part-time" in the tables includes respondents who usually do not work 35 or more hours per week and who worked in the past week or had a job despite not working in the past week.
	Unemployed	"Unemployed" in the tables refers to respondents who did not have a job, were on layoff, and were looking for work. For consistency with the Current Population Survey definition of unemployment, respondents who reported that they did not have a job but were looking for work needed to report making specific efforts to find work in the past 30 days.
	Other	"Other" includes all other responses, including being a student, someone who is keeping house or caring for children full time, retired, disabled, or other miscellaneous work statuses. Respondents who reported that they did not have a job, were on layoff, and were not looking for work were classified as not being in the labor force. Similarly, respondents who reported not having a job and looking for work also were classified as not being in the labor force if they did not report making specific efforts to find work in the past 30 days.
Ethnicity	SEE: "Race/Ethnicity."	
Ever Use	SEE: "Lifetime Use."	
Exposure to Drug Education and Prevention	Adolescents were asked: "Please indicate if you have had any of these alcohol or drug education classes or experiences in school during the past 12 months . . . Have you had a special class about drugs or alcohol? Have you had films, lectures, discussions, or printed information about drugs or alcohol in one of your regular classes, such as health, physical education, etc.?	

Have you had films, lectures, discussions, or printed information about drugs or alcohol outside of one of your regular classes, such as in special assemblies?"

(Youths who reported that they were home schooled in the past 12 months also were asked these questions. Youths who reported that they were home schooled were previously instructed to think about their home schooling as "school.")

Youths also were asked: "During the past 12 months, have you seen or heard any alcohol or drug prevention messages from sources outside school, such as in posters, pamphlets, and radio or TV ads?"

Family Income

Family income was ascertained by asking respondents: "Of these income groups, which category best represents (your/SAMPLE MEMBER's) total combined family income during [the previous calendar year]?... (Income data are important in analyzing the health information we collect. For example, the information helps us to learn whether persons in one income group use certain types of medical care services or have conditions more or less often than those in another group.)"

NOTE: For youths and those unable to respond to income questions, proxy responses were accepted.

Gang Fighting

Youths aged 12 to 17 were asked how many times during the past 12 months they had taken part in a fight where a group of their friends fought against another group. Response alternatives were (1) 0 times, (2) 1 or 2 times, (3) 3 to 5 times, (4) 6 to 9 times, or (5) 10 or more times.

SEE: "Delinquent Behavior" and "Stealing."

Geographic Division

Data are presented for nine geographic divisions within the four geographic regions. Within the Northeast Region are the New England Division (Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut) and the Middle Atlantic Division (New York, New Jersey, Pennsylvania). Within the Midwest Region are the East North Central Division (Wisconsin, Illinois, Michigan, Indiana, Ohio) and the West North Central Division (North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa, Missouri). Within the South Region are the South Atlantic Division (West Virginia, Virginia, Maryland, Delaware, District of Columbia, North Carolina, South Carolina, Georgia, Florida), the East South Central Division (Mississippi, Tennessee, Kentucky, Alabama), and the West South Central Division (Texas, Oklahoma, Arkansas, Louisiana). Within the West Region are the Mountain Division (Idaho, Nevada, Arizona, New Mexico, Utah, Colorado, Wyoming, Montana) and the Pacific Division (California, Oregon, Washington, Hawaii, Alaska).

SEE: "Region."

Hallucinogens

Measures of use of hallucinogens in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last used any hallucinogen?"

Feeder questions: "The next questions are about substances called hallucinogens. These drugs often cause people to see or experience things that are not real... Have you ever, even once, used LSD, also called *acid*? Have you ever, even once, used PCP, also called *angel dust* or phencyclidine? Have you ever, even once, used peyote? Have you ever, even once, used mescaline? Have you ever, even once, used psilocybin, found in mushrooms? Have you ever, even once, used *Ecstasy*, also known as MDMA? Have you ever, even once used any other hallucinogen besides the ones that have been listed?"

SEE: "Current Use," "Ecstasy," "Lifetime Use," "LSD," "Past Month Use," "Past Year Use," "PCP," "Prevalence," and "Recency of Use."

Health Insurance Status

A series of questions were asked to identify whether respondents were currently covered by Medicare, Medicaid, the State Children's Health Insurance Program (SCHIP), military health care (such as TRICARE or CHAMPUS), private health insurance, or any kind of health insurance (if respondents reported not being covered by any of the above). If respondents did not currently have health insurance coverage, questions were asked to determine the length of time they were without coverage and the reasons for not being covered.

NOTE: For youths and those respondents who were unable to respond to the insurance questions, proxy responses were accepted.

Heavy Use of Alcohol

Heavy use of alcohol was defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on 5 or more days in the past 30 days. Heavy alcohol users also were defined as binge users of alcohol.

Feeder question: "How long has it been since you last drank an alcoholic beverage?"

SEE: "Alcohol" and "Binge Use of Alcohol."

Heroin

Measures of use of heroin in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last used heroin?"

Feeder question: "These next questions are about heroin. Have you ever, even once, used heroin?"

SEE: "Current Use," "Lifetime Use," "Past Month Use," "Past Year Use," "Prevalence," and "Recency of Use."

Hispanic

"Hispanic" was defined as anyone of Hispanic, Latino, or Spanish origin. Respondents were classified as Hispanic in the race/ethnicity measure regardless of race.

SEE: "American Indian or Alaska Native," "Asian," "Black," "Race/Ethnicity," "Two or More Races," and "White."

Illicit Drugs

Illicit drugs include marijuana, cocaine, inhalants, hallucinogens (including LSD, PCP, or Ecstasy), heroin, or nonmedical use of psychotherapeutics, which include stimulants, sedatives, tranquilizers, and pain relievers. Illicit drug use has referred to use of any of these drugs.

SEE: "Current Use," "Past Month Use," "Past Year Use," "Prevalence," and "Recency of Use."

Income

SEE: "Family Income."

Incidence

Substance use incidence refers to use of a substance for the first time (new use). Incidence estimates are based on questions about age of first use of substances, year and month of first use for recent initiates, the respondent's date of birth, and the interview date. Incidents of first use are classified by year of occurrence and age at the date of first use.

Inhalants

Measures of use of inhalants in the respondent's lifetime, the past year, and the past month were developed from responses to the

	question about recency of use: "How long has it been since you last used any inhalant for kicks or to get high?" Feeder questions: "These next questions are about liquids, sprays, and gases that people sniff or inhale to get high or to make them feel good... Have you ever, even once, inhaled [INHALANT NAME] for kicks or to get high?" Respondents were asked about the following inhalants: (a) amyl nitrite, "poppers," locker room odorizers, or "rush"; (b) correction fluid, degreaser, or cleaning fluid; (c) gasoline or lighter fluid; (d) glue, shoe polish, or toluene; (e) halothane, ether, or other anesthetics; (f) lacquer thinner or other paint solvents; (g) lighter gases, such as butane or propane; (h) nitrous oxide or whippets; (i) spray paints; (j) some other aerosol spray; and (k) any other inhalants besides the ones that have been listed. SEE: "Current Use," "Lifetime Use," "Past Month Use," "Past Year Use," "Prevalence," and "Recency of Use."
Lifetime Use	This indicates use of a specific drug at least once in the respondent's lifetime. This measure includes respondents who also reported last using the drug in the past 30 days or past 12 months. SEE: "Current Use," "Past Month Use," "Past Year Use," "Prevalence," and "Recency of Use."
Low Precision	Prevalence estimates based on only a few respondents or with relatively large standard errors were not shown in the tables, but have been replaced with an asterisk (*) and noted as "low precision." These estimates have been omitted because one cannot place a high degree of confidence in their accuracy. Please see Table B.1 in Appendix B for a complete list of the rules used to determine low precision.
LSD	Measures of use of lysergic acid diethylamide (LSD) in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last used LSD?" SEE: "Current Use," "Ecstasy," "Hallucinogens," "Lifetime Use," "Past Month Use," "Past Year Use," "PCP," "Prevalence," and "Recency of Use."
Marijuana	Measures of use of marijuana in the respondent's lifetime, the past year, and the past month were developed from responses to the

question about recency of use: "How long has it been since you last used marijuana or hashish?"

Feeder question: "The next questions are about marijuana and hashish. Marijuana is also called pot or grass. Marijuana is usually smoked—either in cigarettes called joints, or in a pipe. It is sometimes cooked in food. Hashish is a form of marijuana that is also called *hash*. It is usually smoked in a pipe. Another form of hashish is hash oil. Have you ever, even once, used marijuana or hash?"

SEE: "Current Use," "Lifetime Use," "Past Month Use," "Past Year Use," "Prevalence," and "Recency of Use."

Mental Health Treatment

For adults, mental health treatment is defined as treatment or counseling for any problem with emotions, nerves, or mental health in the 12 months prior to the interview in any inpatient or outpatient setting, or the use of prescription medication for treatment of a mental or emotional condition. For youths aged 12 to 17, mental health treatment is defined as receiving treatment or counseling for emotional or behavioral problems from specific mental health or other health professionals in school, home, outpatient, or inpatient settings within the 12 months prior to the interview. Treatment for only a substance abuse problem is not included for adults or youths.

SEE: "Prevalence."

Methamphetamine

Measures of use of methamphetamine (also known as crank, crystal, ice, or speed), Desoxyn, or Methedrine in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last used methamphetamine, Desoxyn, or Methedrine?"

SEE: "Current Use," "Lifetime Use," "Past Month Use," "Past Year Use," "Prevalence," "Recency of Use," and "Stimulants."

Need for Alcohol Treatment

Respondents were classified as needing treatment for an alcohol problem if they met at least one of three criteria during the past year: (1) dependent on alcohol; (2) abuse of alcohol; or (3) received treatment for an alcohol problem at a specialty facility (i.e., drug and alcohol rehabilitation facilities [inpatient or outpatient], hospitals [inpatient only], and mental health centers).

SEE: "Abuse," "Dependence," "Prevalence," "Specialty Treatment Facility," and "Substance Abuse Treatment."

Need for Illicit Drug or Alcohol Treatment

Respondents were classified as needing treatment for an illicit drug or alcohol problem if they met at least one of three criteria during the past year: (1) dependent on any illicit drug or alcohol; (2) abuse of any illicit drug or alcohol; or (3) received treatment for an illicit drug or alcohol problem at a specialty facility (i.e., drug and alcohol rehabilitation facilities [inpatient or outpatient], hospitals [inpatient only], and mental health centers).

SEE: "Abuse," "Dependence," "Prevalence," "Specialty Treatment Facility," and "Substance Abuse Treatment."

Need for Illicit Drug Treatment

Respondents were classified as needing treatment for an illicit drug problem if they met at least one of three criteria during the past year: (1) dependent on any illicit drug; (2) abuse of any illicit drug; or (3) received treatment for an illicit drug problem at a specialty facility (i.e., drug and alcohol rehabilitation facilities [inpatient or outpatient], hospitals [inpatient only], and mental health centers).

SEE: "Abuse," "Dependence," "Prevalence," "Specialty Treatment Facility," and "Substance Abuse Treatment."

Nonmedical Use of Any Psychotherapeutic

This section of the interview instrument deals with nonmedical use of four classes of psychotherapeutics: pain relievers, sedatives, stimulants, and tranquilizers.

Measures of use of nonmedical psychotherapeutic agents in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last used any prescription [pain reliever, sedative, stimulant, or tranquilizer] that was not prescribed for you or that you took only for the experience or feeling it caused?"

Feeder question: "Now we have some questions about drugs that people are supposed to take only if they have a prescription from a doctor. We are only interested in your use of a drug if the drug was not prescribed for you, or if you took the drug only for the experience or feeling it caused."

NOTE: The pill card contains pictures and names of specific drugs within each psychotherapeutic category. For example, pictures and the names of Valium, Librium, and other tranquilizers are shown when the section on tranquilizers is introduced.

SEE: "Current Use," "Lifetime Use," "Pain Relievers," "Past Month Use," "Past Year Use," "Pill Cards," "Prevalence," "Psychotherapeutic Drugs," "Recency of Use," "Sedatives," "Stimulants," and "Tranquilizers."

Northeast Region

The States included are those in the New England Division—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont—and the Middle Atlantic Division—New Jersey, New York, Pennsylvania.

SEE: "Region" and "Geographic Division."

Pain Relievers

Measures of use of pain relievers in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last used any prescription pain reliever that was not prescribed for you, or that you took only for the experience or feeling it caused?"

Feeder question: "The questions in this section are about the use of pain relievers. We are not interested in your use of *over-the-counter* pain relievers such as aspirin, Tylenol, or Advil that can be bought in drug stores or grocery stores without a doctor's prescription. Card A shows pictures of some different types of pain relievers and lists the names of some others. These pictures show only pills, but we are interested in your use of any form of prescription pain relievers that were not prescribed for you or that you took only for the experience or feeling they caused."

The following prescription pain relievers were listed on Pill Card A (Pain Relievers): (1) Darvocet®, Darvon®, or Tylenol® with Codeine; (2) Percocet®, Percodan®, or Tylox®; (3) Vicodin®, Lortab®, or Lorcet®/Lorcet Plus®; (4) Codeine; (5) Demerol®; (6) Dilaudid®; (7) Fioricet®; (8) Fiorinal®; (9) Hydrocodone; (10) Methadone; (11) Morphine; (12) Oxycontin®; (13) Phenaphen® with Codeine; (14) Propoxyphene; (15) SK-65®; (16) Stadol® (no picture); (17) Talacen®; (18) Talwin®; (19) Talwin NX®; (20) Tramadol (no picture); and (21) Ultram®.

SEE: "Current Use," "Lifetime Use," "Nonmedical Use of Any Psychotherapeutic," "Past Month Use," "Past Year Use," "Pill Cards," "Prevalence," "Psychotherapeutic Drugs," "Recency of Use," "Sedatives," "Stimulants," and "Tranquilizers."

Past Month Use

This measure indicates use of a specific drug in the 30 days prior to the interview. Respondents who indicated past month use of a specific drug also were classified as lifetime and past year users.

SEE: "Current Use," "Lifetime Use," "Past Year Use," "Prevalence," and "Recency of Use."

Past Year Use

This measure indicates use of a specific drug in the 12 months prior to the interview. This definition includes those respondents who last used the drug in the 30 days prior to the interview. Respondents who indicated past year use of a specific drug also were classified as lifetime users.

SEE: "Current Use," "Lifetime Use," "Past Month Use," "Prevalence," and "Recency of Use."

PCP

Measures of use of phencyclidine (PCP) in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last used PCP?"

SEE: "Current Use," "Ecstasy," "Hallucinogens," "Lifetime Use," "LSD," "Past Month Use," "Past Year Use," "Prevalence," and "Recency of Use."

Perceived Risk/ Harmfulness

Respondents were asked to assess the extent to which people risk harming themselves physically and in other ways when they use various illicit drugs, alcohol, and cigarettes, with various levels of frequency. Response alternatives were (1) no risk, (2) slight risk, (3) moderate risk, and (4) great risk.

Percentages

In this report, all the 2002 tables contain percentages based on weighted data.

SEE: "Rounding."

Pill Cards

The pill cards contain pictures and names of specific drugs within each psychotherapeutic category. For example, pictures and the names of Valium, Librium, and other tranquilizers are shown when the questionnaire section on tranquilizers is introduced. Pill cards have been modified over the years to reflect changes in available psychotherapeutic drugs.

SEE: "Current Use," "Lifetime Use," "Nonmedical Use Any Psychotherapeutic," "Pain Relievers," "Past Month Use," "Past Year Use," "Prevalence," "Psychotherapeutic Drugs," "Recency of Use," "Sedatives," "Stimulants," and "Tranquilizers."

Prevalence

General term used to describe the estimates for lifetime, past year, and past month substance use, dependence or abuse, or other behaviors of interest within a given period (e.g., the past 12 months). The latter include delinquent behavior, driving under the influence of alcohol or drugs, mental health treatment, need for alcohol or illicit drug treatment, serious mental illness, substance abuse treatment, and unmet need for mental health treatment or counseling.

SEE: "Abuse," "Delinquent Behavior," "Current Use," "Dependence," "Driving Under the Influence," "Mental Health Treatment," "Need for Illicit Drug or Alcohol Treatment," "Recency of Use," "Serious Mental Illness," "Substance Abuse Treatment," and "Unmet Need."

Psychotherapeutic Drugs

Psychotherapeutic drugs are generally prescription medications that also can be used illicitly to "get high" or for other effects. These include pain relievers, sedatives, stimulants, and tranquilizers.

SEE: "Current Use," "Lifetime Use," "Nonmedical Use of Any Psychotherapeutic," "Pain Relievers," "Past Month Use," "Past Year Use," "Pill Cards," "Prevalence," "Recency of Use," "Sedatives," "Stimulants," and "Tranquilizers."

Race/Ethnicity

Race/ethnicity is used to refer to the respondent's self-classification as to racial and ethnic origin and identification. For Hispanic origin, respondents were asked, "Are you of Hispanic, Latino, or Spanish origin or descent?" For race, respondents were asked, "Which of these groups best describes you?" Response alternatives were (1) white, (2) black/African American, (3) American Indian or Alaska Native, (4) Native Hawaiian, (5) other Pacific Islander, (6) Asian, and (7) other. Categories for race/ethnicity included Hispanic, non-Hispanic groups where respondents indicated only one race (white, black, American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, Asian), and non-Hispanic groups where respondents reported two or more races.

SEE: "American Indian or Alaska Native," "Asian," "Black," "Hispanic," "Two or More Races," and "White."

Recency of Use

The recency question for each drug was the source for the lifetime, past year, and past month prevalence rates.

The question was essentially the same for all classes of drugs. The question was: "How long has it been since you last used [drug name]?" For the four classes of psychotherapeutics, the phrase "that was not prescribed for you or only for the experience or feeling it caused" was added after the name of the drug.

For tobacco products (cigarettes, snuff, chewing tobacco, or cigars), the response alternatives were (1) within the past 30 days; (2) more than 30 days ago but within the past 12 months; (3) more than 12 months ago but within the past 3 years; (4) more than 3 years ago. For the remaining drugs, the response alternatives were (1) within the past 30 days; (2) more than 30 days ago but within the past 12 months; and (3) more than 12 months ago.

SEE: "Current Use," "Lifetime Use," "Past Month Use," "Past Year Use," and "Prevalence."

Region

There were four regions to consider: Northeast, Midwest, South, and West. These regions are based on classifications developed by the U.S. Bureau of the Census.

SEE: "Northeast Region," "Midwest Region," "South Region," "West Region," and "Geographic Division."

Rounding

The decision rules for the rounding of percentages were as follows. If the second number to the right of the decimal point was greater than or equal to 5, the first number to the right of the decimal point was rounded up to the next higher number. If the second number to the right of the decimal point was less than 5, the first number to the right of the decimal point remained the same. Thus, a prevalence rate of 16.55 percent would be rounded to 16.6 percent, while a rate of 16.44 percent would be rounded to 16.4 percent. Although the percentages in the 2002 tables generally total 100 percent, the use of rounding sometimes produces a total of slightly less than or more than 100 percent.

SEE: "Percentages."

Sedatives

Measures of use of sedatives in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last used any prescription sedative that was not prescribed for you, or that you took only for the experience or feeling it caused?"

Feeder question: "The questions in this section are about the use of sedatives and barbiturates. These drugs are also called *downers* or *sleeping pills*. People take these drugs to help them relax or to help them sleep. We are not interested in the use of *over-the-counter* sedatives such as Sominex, Unisom, Nytol, or Benadryl that can be bought in drug stores or grocery stores without a doctor's prescription. Card D shows pictures of different kinds of prescription sedatives and lists the names of some others. These pictures show only pills, but we are interested in your use of any form of prescription sedatives that were not prescribed for you or that you took only for the experience or feeling they caused."

The following prescription sedatives were listed on Pill Card D (Sedatives): (1) Methaqualone (includes Sopor®, Quaalude®) (no picture); (2) Nembutal®, Pentobarbital (no picture), Seconal®, Secobarbital (no picture), or Butalbital (no picture); (3) Restoril® or Temazepam; (4) Amytal®; (5) Butisol®; (6) Chloral Hydrate (no picture); (7) Dalmane®; (8) Halcion®; (9) Phenobarbital; (10) Placidyl®; and (11) Tuinal®.

SEE: "Current Use," "Lifetime Use," "Nonmedical Use of Any Psychotherapeutic," "Pain Relievers," "Past Month Use," "Past Year Use," "Pill Cards," "Prevalence," "Psychotherapeutic Drugs," "Recency of Use," "Stimulants," and "Tranquilizers."

Serious Mental Illness

Serious mental illness (SMI) is defined as having at some time during the past 12 months a diagnosable mental, behavioral, or emotional disorder that met the criteria for a DSM-IV (APA, 1994) disorder and that resulted in functional impairment that substantially interfered with or limited one or more major life activities. The questions that measured SMI in the 2002 NSDUH consisted of a short scale of six questions that asked respondents how often they experienced symptoms of psychological distress during the 1 month in the past 12 months when they were at their worst emotionally (see Section B.6 in Appendix B).

SEE: "Prevalence."

Significance

A significance level of 0.05 is used in comparing two rates in the text for demographic subgroups of the most recent survey sample.

Smokeless Tobacco Use

Measures of use of smokeless tobacco in the respondent's lifetime, the past year, and the past month were developed from responses to the questions about snuff and chewing tobacco use in the past 30 days and the recency of use (if not in the past 30 days): "Now think about the past 30 days—that is, from [DATEFILL] up to and including today. During the past 30 days, have you used snuff, even once?" "How long has it been since you last used snuff?" "Now think about the past 30 days—that is, from [DATEFILL] up to and including today. During the past 30 days, have you used chewing tobacco, even once?" and "How long has it been since you last used chewing tobacco?"

Feeder questions: "These next questions are about your use of snuff, sometimes called dip... Have you ever used snuff, even once?" and "These next questions are only about chewing tobacco... Have you ever used chewing tobacco, even once?"

SEE: "Cigarettes," "Cigars," "Current Use," "Lifetime Use," "Past Month Use," "Past Year Use," "Prevalence," and "Recency of Use."

South Region

The States included are those in the South Atlantic Division—Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia; the East South Central Division—Alabama, Kentucky, Mississippi, and Tennessee; and the West South Central Division—Arkansas, Louisiana, Texas, and Oklahoma.

SEE: "Region" and "Geographic Division."

Specialty Treatment Facility

Defined as drug or alcohol rehabilitation facilities (inpatient or outpatient), hospitals (inpatient only), and mental health centers.

SEE: "Need for Illicit Drug or Alcohol Treatment" and "Substance Abuse Treatment."

Stealing

Respondents were asked how many times during the past 12 months they had stolen or tried to steal anything worth more than $50. Response alternatives were (1) 0 times, (2) 1 or 2 times, (3) 3 to 5 times, (4) 6 to 9 times, or (5) 10 or more times.

SEE: "Delinquent Behavior" and "Gang Fighting."

Stimulants

Measures of use of stimulants in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last used any prescription stimulant that was not prescribed for you or that you took only for the experience or feeling it caused?"

Feeder question: "These next questions are about the use of drugs such as amphetamines that are known as stimulants, *uppers*, or *speed*. People sometimes take these drugs to lose weight, to stay awake, or for attention deficit disorders. We are not interested in the use of *over-the-counter* stimulants such as Dexatrim or No-Doz that can be bought in drug stores or grocery stores without a doctor's prescription. Card C shows pictures of some different kinds of prescription stimulants and lists the names of some others. These pictures show only pills, but we are interested in your use of any form of prescription stimulants that were not prescribed for you or that you took only for the experience or feeling it caused."

The following prescription stimulants were listed on Pill Card C (Stimulants): (1) Methamphetamine (crank, crystal, ice, or speed) (no picture), Desoxyn®, or Methedrine (no picture); (2) Amphetamines (no picture), Benzedrine®, Biphetamine®, Fastin®, or Phentermine; (3) Ritalin® or Methylphenidate; (4) Cylert®; (5) Dexedrine®; (6) Dextroamphetamine (no picture); (7) Didrex®; (8) Eskatrol®; (9) Ionamin®; (10); Mazanor®; (11) Obedrin-LA® (no picture); (12) Plegine®; (13) Preludin®; (14) Sanorex®; and (15) Tenuate®.

SEE: "Current Use," "Lifetime Use," "Nonmedical Use of Any Psychotherapeutic," "Pain Relievers," "Past Month Use," "Past Year Use," "Pill Cards," "Prevalence," "Psychotherapeutic Drugs," "Recency of Use," "Sedatives," and "Tranquilizers."

Substance Abuse Treatment

Respondents were asked if they had received treatment for alcohol use, illicit drug use, or both alcohol and illicit drug use in the past 12 months in any of the following locations: a hospital overnight as an inpatient, a residential drug or alcohol rehabilitation facility where you stayed overnight, a drug or alcohol rehabilitation facility as an outpatient, an emergency room, a private doctor's office, prison or jail, a self-help group, or some other place.

SEE: "Need for Illicit Drug or Alcohol Treatment," "Prevalence," and "Specialty Treatment Facility."

Tobacco

SEE: "Any Use of Tobacco," "Cigarettes," "Cigars," and "Smokeless Tobacco Use."

Total Family Income

SEE: "Family Income."

Tranquilizers

Measures of use of tranquilizers in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last used any prescription tranquilizer that was not prescribed for you, or that you took only for the experience or feeling it caused?"

Feeder question: "These next questions ask about the use of tranquilizers. Tranquilizers are usually prescribed to relax people, to calm people down, to relieve anxiety, or to relax muscle spasms. Some people call tranquilizers *nerve pills*. Card B shows pictures of some different kinds of prescription tranquilizers. These pictures show only pills, but we are interested in your use of any form of prescription tranquilizers that were not prescribed for you, or that you took only for the experience or feeling they caused."

The following prescription tranquilizers were listed on Pill Card B (Tranquilizers): (1) Klonopin® or Clonazepam; (2) Xanax®, Alprazolam, Ativan®, or Lorazepam; (3) Valium® or Diazepam; (4) Atarax®; (5) BuSpar®; (6) Equanil®; (7) Flexeril®; (8) Librium®; (9) Limbitrol®; (10) Meprobamate; (11) Miltown®; (12) Rohypnol®; (13) Serax®; (14) Soma®; (15) Tranxene®; and (16) Vistaril®.

SEE: "Current Use," "Lifetime Use," "Nonmedical Use of Any Psychotherapeutic," "Pill Cards," "Pain Relievers," "Past Month Use," "Past Year Use," "Prevalence," "Psychotherapeutic Drugs," "Recency of Use," "Sedatives," and "Stimulants."

Two or More Races

Respondents were asked to report which racial group describes them. Response alternatives were (1) white, (2) black/African American, (3) American Indian or Alaska Native, (4) Native Hawaiian, (5) other Pacific Islander, (6) Asian, and (7) other. Respondents were allowed to choose more than one of these groups. Persons who chose both the "Native Hawaiian" and "other Pacific Islander" categories (and no additional categories) were classified in a single category: Native Hawaiian or other Pacific

	Islander. Otherwise, persons reporting two or more of the above groups and that they were not of Hispanic, Latino, or Spanish origin were included in this "Two or More Races" category. This category does not include respondents who reported more than one Asian subgroup but who reported "Asian" as their only race. Respondents reporting two or more races and reporting that they were of Hispanic, Latino, or Spanish origin were classified as Hispanic. SEE: "Hispanic" and "Race/Ethnicity."
Unmet Need	Unmet treatment or counseling need is defined as a perceived need for mental health treatment that was not received in the past 12 months This measure also includes persons who received some mental health treatment in the past 12 months but also reported that they perceived a need for treatment. Unmet need among those who received treatment may be interpreted as delayed or insufficient treatment in the past 12 months. SEE: "Mental Health Treatment," and "Prevalence."
Welfare Assistance	Household participation in one or more government assistance programs during the prior calendar year was defined as one or more family members receiving Supplemental Security Income (SSI), food stamps, cash, or noncash assistance. SSI provides payments to low-income, aged, blind, and disabled persons. Food stamps are government-issued coupons used to purchase food. Cash assistance refers to cash payments through Temporary Assistance for Needy Families (TANF), welfare, or other public assistance. Noncash assistance refers to services such as help getting a job, placement in an education or job training program, or help with transportation, child care, or housing. NOTE: For youths and those respondents who were unable to respond to the insurance or income questions, proxy responses were accepted.
West	The States included are those in the Mountain Division—Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming; and the Pacific Division—Alaska, California, Hawaii, Oregon, and Washington. SEE: "Region" and "Geographic Division"
White	White, not of Hispanic, Spanish, or Latino origin; does not include respondents reporting two or more races. (Respondents reporting

that they were white and of Hispanic, Latino, or Spanish origin were classified as Hispanic.)

SEE: "Hispanic" and "Race/Ethnicity."

Appendix E: Other Sources of Data

A variety of other surveys and data systems collect data on substance use, abuse, and dependence. It is useful to consider the results of these other studies when discussing the National Survey on Drug Use and Health (NSDUH) data. In doing this, it is important to understand the methodological differences between the different surveys and the impact that these differences could have on estimates of substance use prevalence. This appendix briefly describes several of these other data systems, including recent results from them. Not all survey results or variables within the surveys are available for 2002 for comparison with results from the 2002 NSDUH. For some comparisons, NSDUH estimates were generated from the first 6 months of data collection to be consistent with the data collection periods of other surveys.

In-depth comparisons of the methodologies of the three major federally sponsored national surveys of youth substance use have been done. In 1997, a comparison between the National Household Survey on Drug Abuse[1] (NHSDA) and Monitoring the Future (MTF) was published (Gfroerer et al., 1997). In 2000, a series of papers comparing different aspects of the NHSDA, MTF, and the Youth Risk Behavior Survey (YRBS) was commissioned by the U.S. Department of Health and Human Services (DHHS). Under contract with the Office of the Assistant Secretary for Planning and Evaluation, Westat, Inc., identified and funded several experts in survey methods to prepare these papers. The papers were published in the *Journal of Drug Issues* (Hennessy & Ginsberg, 2001). The major findings of this study were as follows:

- The design, implementation, and documentation of all three surveys are of high quality. The surveys exhibit no flaws in the execution of basic survey procedures.

- The goals and approaches of these three surveys are very different, making comparisons between them difficult. The surveys differ significantly in terms of populations covered, sampling methods, modes of data collection, questionnaires, and estimation methods.

- Estimates of substance use are generally highest from the YRBS and lowest from the NHSDA. The NHSDA probably produces lower rates because it is done in the home, whereas the other two surveys collect data in school classrooms, away from parents and other family members.

- NHSDA prevalence rates also may be lower because of the NHSDA's requirement of thorough parental consent prior to youth participation. The greater parental involvement in consent procedures in the NHSDA, compared with the two school surveys, may suppress youth reporting of substance use.

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[1] Beginning with the 2002 survey year, the survey name was changed from the National Household Survey on Drug Abuse (NHSDA) to the National Survey on Drug Use and Health (NSDUH).

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These findings suggest that differences in survey methodology may affect comparisons of prevalence estimates among youths from various surveys. This appendix investigates the similarities and differences among rates.

E.1 Other National Surveys of Illicit Drug Use

Monitoring the Future (MTF)

The Monitoring the Future (MTF) study is a national survey that tracks drug use trends and related attitudes among America's adolescents. This survey is conducted annually by the Institute for Social Research at the University of Michigan through a grant awarded by the National Institute on Drug Abuse (NIDA). The MTF and NSDUH are the Federal Government's largest and primary tools for tracking youth substance use. The MTF is composed of three substudies: (a) an annual survey of high school seniors initiated in 1975; (b) ongoing panel studies of representative samples from each graduating class that have been conducted by mail since 1976; and (c) annual surveys of 8th and 10th graders initiated in 1991. In 2002, for all three grades combined, 394 public and private schools and about 43,700 students were in the sample. The students completed a self-administered questionnaire during a regular class period (Johnston, O'Malley, & Bachman, 2003a, 2003b).

Comparisons between the MTF estimates and estimates based on students sampled in NSDUH have generally shown NSDUH substance use prevalence levels to be lower than MTF estimates, with relative differences being largest for 8th graders. The lower prevalences in NSDUH may be due to more underreporting in the household setting as compared with the MTF school setting. The MTF does not survey dropouts, a group generally shown (using NSDUH) to have higher rates of use (Gfroerer et al., 1997). In 2002, for most comparisons of estimates of lifetime, past year, and past month prevalence of use among 8th, 10th, and 12th graders between NSDUH and MTF, NSDUH estimates were lower (Table E.1).

Youth Risk Behavior Survey (YRBS)

The Youth Risk Behavior Survey (YRBS) is a component of the Centers for Disease Control and Prevention's (CDC's) Youth Risk Behavior Surveillance System (YRBSS), which biennially measures the prevalence of six priority health risk behavior categories: (a) behaviors that contribute to unintentional and intentional injuries; (b) tobacco use; (c) alcohol and other drug use; (d) sexual behaviors that contribute to unintended pregnancy and sexually transmitted diseases (STDs); (e) unhealthy dietary behaviors; and (f) physical inactivity. The YRBSS includes national, State, territorial, and local school-based surveys of high school students. The latest YRBS survey was conducted in 2001. The 2001 national school-based survey used a three-stage cluster sample design to produce a nationally representative sample of students in grades 9 through 12. The 2001 State and local surveys used a two-stage cluster sample design to produce representative samples of students in grades 9 through 12 in their jurisdictions. The 2001 national YRBS sample included 13,601 students in grades 9 through 12 in the 50 States and the District of Columbia. The national survey and all of the State and local surveys were conducted during the spring of 2001, with the exception of Hawaii. The Hawaii surveys were conducted in the fall of 2001. The students completed a self-administered questionnaire during a regular class period (CDC, 2003b). In general, this school-based survey has found higher rates of alcohol, cigarette, marijuana, and cocaine use for youths than those found in NSDUH. The prevalence of illicit drug use is generally much higher in the YRBS than in NSDUH (e.g., past month marijuana use was 23.9 percent in the 2001 YRBS compared with 8.0 percent in the 2001 NSDUH and 8.2 percent for youths aged 12 to 17 in the 2002 NSDUH). This is likely due to the dissimilarity of the study designs (school-based vs. home-based).

National Longitudinal Study of Adolescent Health (Add Health)

The National Longitudinal Study of Adolescent Health (Add Health) is conducted to measure the effects of family, peer group, school, neighborhood, religious institution, and community influences on health risks, such as tobacco, drug, and alcohol use. The survey also asks about substance abuse (alcohol, tobacco, and illicit drugs). The survey consists of three phases. In Wave 1 (conducted in 1994-95), roughly 90,000 students from grades 7 through 12 at 144 schools around the United States answered brief questionnaires. Interviews also were conducted with about 20,000 students and their parents in the students' homes. In Wave 2, students were interviewed a second time in their homes. These interviews took place in 1996. Wave 3 consists of re-interviews of respondents from Wave 1 and began in July 2001. Survey results from the first two waves indicated that nearly one fourth of teenagers had ever smoked marijuana. Nearly 7 percent of 7th and 8th graders used marijuana at least once in the past month as did 15.7 percent of 9th through 12th graders (Resnick et al., 1997).

Partnership Attitude Tracking Study (PATS)

The Partnership Attitude Tracking Study (PATS) is an ongoing national research study that tracks drug use and drug-related attitudes among children, teenagers, and their parents. It is sponsored by the Partnership for a Drug Free America (PDFA). In the 2002 PATS, 7,084 teenagers in grades 7 through 12 completed self-administered questionnaires (PDFA, 2003a, 2003b). For the first time in 2002, PATS included questions on prescription drug abuse. The 2002 PATS found that 20 percent of youths in grades 7 to 12 had ever used prescription pain killers without a doctor's prescription; 19 percent of adolescents reported lifetime use of inhalants; and 40 percent reported lifetime use of marijuana. NSDUH reported notably lower prevalence rates than PATS. The major difference in these prevalence estimates is likely to be due to the different study designs. The youth portion of PATS is a school-based survey, which may elicit more reporting of sensitive behaviors than the home-based NSDUH.

National Survey of Parents and Youth (NSPY)

The National Survey of Parents and Youth (NSPY) is sponsored by the National Institute on Drug Abuse (NIDA) to evaluate the Office of National Drug Control Policy's (ONDCP's) National Youth Anti-Drug Media Campaign. The survey is specifically designed to evaluate Phase III of the campaign, which began in September 1999 and will run at least until 2003. The NSPY is divided into two phases, with five waves of data collection in these two phases. In Phase I (Waves 1 through 3 of data collection), a sample of youths aged 9 to 18 and their parents were recruited to participate in the in-home survey. In Phase II (Waves 4 and 5 of data collection), the respondents from Phase I participated in two additional interviews at intervals of 6 to 24 months. In November 2002, ONDCP released its fifth semiannual report of findings that contained data from all three phases (Hornik et al., 2002a).

Wave 5's data were collected between January and June 2002 and included 4,040 youths and 2,882 parents. This wave of data showed that the past year rate of marijuana use among 12 to 18 year olds was 15.5 percent (Hornik et al., 2002a). The corresponding 2002 NSDUH estimate for past year marijuana use among youths aged 12 to 18 was 25.3 percent. Despite the differences in methodology, the two surveys produced very similar estimates for youths (see Table E.2).

In past waves of NSPY data collection, parents also have been asked about their drug use behaviors; however, parental use was not asked in the Wave 5 data collection. Lifetime use of marijuana was 53.7 percent in 2001, and past month use was 3.4 percent.

E.2 Alcohol and Cigarette Use Surveys

National Health Interview Survey (NHIS)

The National Health Interview Survey (NHIS) is a continuing nationwide sample survey that collects data using personal household interviews. The survey is sponsored by the National Center for Health Statistics (NCHS) and provides national estimates of selected health measures. The data presented are from January through September of 2002. The survey estimated that 22.5 percent of the population aged 18 or older were current cigarette smokers in 2002 (Ni, Schiller, Hao, Cohen, & Barnes, 2003). Among males, 25.3 percent reported current cigarette smoking compared with 19.9 percent of females aged 18 or older.

In the NHIS, current smokers are defined as those who smoke daily, smoked on 1 or more days in the past month, or quit smoking fewer than 30 days ago (for those who smoked 100 or more cigarettes in their lifetime). In NSDUH, current cigarette smoking is defined as any use in the past month. The 2002 NSDUH rate was 27.5 percent for those aged 18 or older. However, when using a definition similar to the NHIS definition, the 2002 NSDUH estimates indicate that 25.6 percent of adults aged 18 or older were current smokers. Among males, 39.6 percent reported current cigarette smoking compared with 25.4 percent of females. Although the two surveys employ different methodologies, NSDUH produces similar estimates when using the NHIS definition. See Table E.3 for a comparison of smoking rates between these two surveys.

The NHIS defines excessive alcohol drinkers as those who consumed greater than or equal to five drinks in 1 day at least 12 times during the past 12 months. The NHIS rate for excessive alcohol consumption among those aged 18 or older was 9.6 percent in 2002. For NSDUH, heavy alcohol use is defined as having five or more drinks on the same occasion on at least 5 different days in the past 30 days. The 2002 NSDUH rate for heavy drinking among those 18 or older was 7.2 percent. Although the two surveys use different definitions and methodologies, they have produced similar estimates for past year alcohol use over the past several years.

Monitoring the Future (MTF)

This school-based survey showed past month cigarette smoking rates of 10.7 percent for 8th graders, 17.7 percent for 10th graders, and 26.7 percent for 12th graders. In contrast, the 2002

NSDUH showed 7.9 percent for 8th graders, 17.6 for 10th graders, and 28.2 percent for 12th graders. See Table E.1 for a comparison of the MTF and NHSDA cigarette use estimates.

According to the 2002 MTF, alcohol consumption in the month prior to the survey was reported by 19.6 percent of 8th graders, 35.4 percent of 10th graders, and 48.6 percent of 12th graders. Table E.1 shows how these numbers compare with NSDUH estimates.

Youth Risk Behavior Survey (YRBS)

The 2001 YRBS found lifetime cigarette use was 63.9 percent and past month cigarette use was 28.5 percent among students in grades 9 to 12 (CDC, 2003b). The 2002 NSDUH lifetime cigarette rate for youths aged 12 to 17 was 33.3 percent, and the past month rate was 13.0 percent; in 2001, comparable rates were 33.6 and 13.0 percent.

Past month alcohol use among 9th to 12th graders in the YRBS was 47.1 percent in the 2001 survey. In contrast, NSDUH showed a past month alcohol use rate of 17.3 percent in 2001 and 17.6 percent in 2002. The 2002 NSDUH rate for binge alcohol use among 12 to 17 year olds also was much lower (10.6 percent in 2001 and 10.7 percent in 2002). It is important to note that the two surveys were conducted in different time periods.

Partnership Attitude Tracking Study (PATS)

Data from the 2002 PATS shows that the prevalence of past month cigarette for adolescents in grades 7 through 12 was 28 percent (PDFA, 2003). The 2002 NSDUH showed a prevalence of 13.0 percent among youths aged 12 to 17. Again, the lower prevalence estimates in NSDUH are likely due to its home-based study design.

The 2002 PATS found that 53 percent of teenagers reported using alcohol in the past year. This compares with 34.6 percent of youths aged 12 to 17 reporting past year use in the 2002 NSDUH. The 2002 PATS also found that 36 percent of teenagers reported past month alcohol use. The binge drinking estimate was 30 percent in 2002. In comparison, the 2002 NSDUH rates for past month alcohol use and binge drinking for 12 to 17 year olds were 17.6 and 10.7 percent, respectively.

Behavioral Risk Factor Surveillance System (BRFSS)

BRFSS is a State-based telephone survey of the civilian, noninstitutionalized adult population sponsored by the CDC. Adults include all persons aged 18 or older. In 2001, BRFSS collected data from all 50 States, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and Guam. BRFSS collects information on access to health care, health status indicators, health risk behaviors (including cigarette and alcohol use), and the use of clinical preventive services by State. The median percentage of adults who reported having five or more alcoholic drinks on an occasion at least five times in the past month, or heavy drinking, was 7.0 percent in 2001 (CDC, 2002, 2003a). The heavy drinking rate for adults was 6.1 percent in the 2001 NHSDA and 7.2 percent in the 2002 NSDUH.

National Longitudinal Study of Adolescent Health (Add Health)

Results from the 1994-95 Add Health indicate that nearly 3.2 percent of 7th and 8th graders smoked six or more cigarettes a day, as did 12.8 percent of 9th through 12th graders (Resnick et al., 1997). In addition, the Add Health study found that 7.3 percent of 7th and 8th graders used alcohol on 2 or more days in the past month, as did 23.1 percent of 9th through 12th graders.

National Survey of Parents and Youth (NSPY)

Past waves of NSPY collected information on cigarette and alcohol use, but Wave 5 in 2002 did not. In 2001, this survey estimated that 34.9 percent of youths aged 12 to 18 had used cigarettes at some point in their lifetime and past month cigarette use was 11.7 percent. The 2002 NSDUH rates of lifetime and past month cigarette use for youths aged 12 to 18 were 38.8 and 16.7 percent, respectively. The two surveys have produced very similar smoking estimates over the past few years.

In 2001, the NSPY estimated that 45.9 percent of youths aged 12 to 18 had used alcohol at some point in their lifetime, and the estimate for past month use was 36.5 percent for the same age group. The 2002 NSDUH rates for lifetime and past month alcohol use were 43.4 and 36.0 percent, respectively.

The rate of past month cigarette use among parents in the 2001 NSPY was 25.2 percent.

Harvard School of Public Health College Alcohol Study (CAS)

In 1993, the Harvard School of Public Health conducted a mail survey of students from a nationally representative sample of colleges. The purpose of the study was to gather data on the drinking patterns of college students. The study was repeated in 1997, 1999, and 2001. The 2001 survey found that the overall rate of binge drinking was 44.4 percent (Wechsler et al., 2002). The CAS defined binge drinking as the consumption of five or more drinks in a row for men and four drinks in a row for women. The study found that the number of students who binge drank frequently was 22.8 percent and those who did not drink at all was 19.3 percent. The 2002 NSDUH binge drinking rate among full-time undergraduates aged 18 to 22 was 44.4 percent. It is useful to note that NSDUH defines binge drinking as five or more drinks in a row on at least one occasion in the past month for both men and women. Despite using different definitions of binge drinking, the CAS estimate and the NSDUH estimate are the same, but it is important to note that the two studies were conducted in different time periods.

E.3 Other Surveys of Substance Abuse and Dependence

National Comorbidity Survey (NCS)

The National Comorbidity Survey (NCS) was sponsored by the National Institute of Mental Health (NIMH), the National Institute on Drug Abuse (NIDA), and the W. T. Grant Foundation. It was designed to measure the prevalence of the illnesses in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III-R) (American Psychiatric Association [APA], 1987). The NCS was a household survey consisting of more than 8,000 respondents aged 15 to

54. The interviews took place between 1990 and 1992. The NCS used a modified version of the Composite International Diagnostic Interview (the UM-CIDI) for its diagnoses. The results showed that 3.6 percent of the population abused or were dependent on some type of drug in the previous 12 months (Kessler et al., 1994). The corresponding NSDUH rate for persons aged 12 or older in 2002 was 3.0 percent. Alcohol abuse or dependence, however, showed a much higher prevalence in the NCS with 14.1 percent of the population abusing or dependent on the drug in the previous year. Alcohol abuse or dependence also had a higher prevalence in the 2002 NSDUH (7.7 percent among persons aged 12 or older), but it was well below the NCS rate. When comparing these two studies, one should keep in mind that they were conducted in two different time periods and they each use a different set of diagnostic questions. The 2002 NSDUH estimates for abuse and dependence are based on the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV) (APA, 1994).

The National Comorbidity Survey Replication (NCS-R) was conducted between February 2001 and December 2002 with more than 9,000 respondents aged 18 or older. Data on substance abuse and dependence are not yet available.

National Longitudinal Alcohol Epidemiologic Survey (NLAES)

The National Longitudinal Alcohol Epidemiologic Survey (NLAES) was conducted in 1992 by the U.S. Bureau of the Census for the National Institute on Alcohol Abuse and Alcoholism. Face-to-face interviews were conducted with 42,862 respondents aged 18 or older in the contiguous United States. NLAES was designed to study the drinking practices, behaviors, and related problems in the general public. The survey included an extensive set of questions designed to assess the presence of symptoms of alcohol and drug abuse and dependence during the prior 12 months, based on the criteria from the DSM-IV (APA, 1994). This study based its diagnoses on the updated DSM-IV. The 1992 survey found that 7.4 percent of adults were abusing or dependent on alcohol (Grant, 1995). In 2002, NSDUH found that 7.9 percent of adults were abusing or dependent on alcohol. NLAES also found that 1.5 percent of adults were abusing or dependent on some type of illicit drug in the past year. In comparison, the 2002 NSDUH found that 2.7 percent of adults were abusing or dependent on some illicit drug. Although the estimates from these two surveys are relatively close, one should note that they were conducted in different time periods using different methodologies.

This study was replicated in 2002 as the National Epidemiological Survey on Alcohol and Related Conditions (NESARC), and many of the original items were retained. Data are not available at this time.

E.4 Surveys of Populations Not Covered by NSDUH

National Survey of Parents and Youth (NSPY)

The NSPY, described above, is distinct in that it measures drug use and attitudes among youths as young as 9. The earlier NSPY results showed that youths aged 9 to 11 were strongly opposed to marijuana use. Wave 3 of the survey estimated that only 0.3 percent of youths aged 9 to 11 had used marijuana in the past year. The corresponding rates for Waves 1 and 2 were 0.8 and 0.0 percent, respectively (ONDCP, 2003).

Washington, DC, Metropolitan Area Drug Study (DC*MADS)

The Washington, DC, Metropolitan Area Drug Study (DC*MADS) was designed (a) to estimate the prevalence, correlates, and consequences of drug abuse among all types of people residing in one metropolitan area of the country during one period of time with special focus on populations who were underrepresented or unrepresented in household surveys and (b) to develop a methodological model for similar types of research in other metropolitan areas of the country. Sponsored by NIDA and conducted from 1989 to 1995 by RTI and Westat, Inc., as the principals, the project included 11 separate but coordinated studies that focused on different population subgroups (e.g., homeless people, institutionalized individuals, adult and juvenile offenders, new mothers, drug abuse treatment clients) or different aspects of the drug abuse problem (e.g., adverse consequences of drug abuse). DC*MADS provided a replicable methodological approach for developing representative estimates of the prevalence of drug abuse among all population subgroups, regardless of their residential setting, in a metropolitan area. The key population domains in DC*MADS were the homeless, the institutionalized, and the household. A major finding of DC*MADS was that, when data are aggregated for populations from each of the three domains, the overall prevalence estimates for use of drugs differ only marginally from those that would be obtained from the household population alone (i.e., from NSDUH), largely because the other populations are very small compared with the household population. However, a somewhat different picture emerged when the numbers of drug users were examined. Adding in the nonhousehold populations resulted in an increase of approximately 14,000 illicit drugs users compared with the corresponding estimates for the household population. About 25 percent of past year crack users, 20 percent of past year heroin users, and one third of past year needle users were found in the nonhousehold population (Bray & Marsden, 1999).

Department of Defense (DoD) Survey of Health Related Behaviors Among Military Personnel

The 1998 DoD Survey of Health Related Behaviors Among Military Personnel (7th in a series of studies conducted since 1980) was sponsored by the DoD and conducted by RTI. The sample consisted of 17,264 active-duty Armed Forces personnel worldwide who anonymously completed self-administered questionnaires that assessed substance use and other health behaviors. For the total DoD, during the 30 days prior to the date that a survey was completed, heavy alcohol use declined from 20.8 percent in 1980 to 15.4 percent in 1998; cigarette smoking decreased from 51.0 percent in 1980 to 29.9 percent in 1998; and use of any illicit drugs declined from 27.6 percent in 1980 to 2.7 percent in 1998 (Bray et al., 1999). For the latest survey, military personnel exhibited significantly higher rates of heavy alcohol use than their civilian counterparts (14.2 vs. 9.9 percent) when demographic differences between the military and civilian populations were taken into account (civilian data were drawn from the 1997 NHSDA and adjusted to reflect demographic characteristics of the military). Differences in military and civilian heavy alcohol use rates were largest for men aged 18 to 25. Among this age group, the military rate was nearly twice as high as the adjusted civilian rate (26.9 vs. 14.9 percent). In contrast, military personnel showed lower rates of cigarette use (29.1 vs. 32.8 percent) compared with civilians, a finding that seems largely due to an increase in smoking among civilians rather than a significant decrease among military personnel since the prior survey in 1995. Similarly, rates of illicit drug use in the military were significantly lower than those observed for the

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comparable civilian population when demographic differences between the military and civilian populations were taken into account (2.6 vs. 10.7 percent). Differences in illicit drug use between the military and civilian populations were more pronounced for males than females. For males aged 18 to 55, 2.8 percent of those in the military used drugs in the 30 days prior to the survey compared with 11.4 percent of the civilian population (adjusted). For females aged 18 to 55, 1.9 percent of those in the military used drugs in the 30 days prior to the survey compared with 6.2 percent of the civilian population (adjusted). Nearly all military personnel reported having been tested for drugs since joining the military.

Survey of Inmates in State and Federal Correctional Facilities

The 1997 Survey of Inmates in State and Federal Correctional Facilities sampled inmates from a universe of 1,409 State prisons and 127 Federal Prisons for the Bureau of Justice Statistics (BJS). Systematic random sampling was used to select the inmates for the computer-assisted personal interviews. The final numbers interviewed were 14,285 State prisoners and 4,041 Federal prisoners. Among other items, these surveys collect information on the use of drugs in the month before the offense for convicted inmates. Women in State prisons (62.4 percent) were more likely than men (56.1 percent) to have used drugs in the month before the offense (BJS, 1999, 2000). Women also were more likely to have committed their offense while under the influence of drugs (40.4 vs. 32.1 percent of male prisoners). Among Federal prisoners, men (45.4 percent) were more likely than women (36.7 percent) to have used drugs in the past month. Male and female Federal prisoners were equally likely to report the influence of drugs during their offense (22.7 percent of male and 19.3 percent of female prisoners). The survey results indicate substantially higher rates of drug use among State and Federal prisoners as compared with the household population.

Table E.1 Use of Specific Substances in Lifetime, Past Year, and Past Month among 8th, 10th, and 12th Graders in NSDUH and MTF: Percentages, 2002

	SURVEY/TIME PERIOD					
	NSDUH (January-June)			MTF		
Drug/Current Grade Level	Lifetime	Past Year	Past Month	Lifetime	Past Year	Past Month
Marijuana						
8th grade	12.0	9.0	4.5	19.2	14.6	8.3
10th grade	30.4	25.1	12.5	38.7	30.3	17.8
12th grade	43.4	30.8	18.2	47.8	36.2	21.5
Cocaine						
8th grade	0.6	0.5	0.1	3.6	2.3	1.1
10th grade	4.1	3.1	1.0	6.1	4.0	1.6
12th grade	6.0	4.5	0.5	7.8	5.0	2.3
Inhalants						
8th grade	10.9	4.8	1.3	15.2	7.7	3.8
10th grade	13.4	4.8	2.0	13.5	5.8	2.4
12th grade	11.0	4.1	0.8	11.7	4.5	1.5
Cigarettes						
8th grade	24.6	14.4	7.9	31.4	--	10.7
10th grade	43.3	26.3	17.6	47.4	--	17.7
12th grade	61.3	39.0	28.2	57.2	--	26.7
Alcohol						
8th grade	32.9	25.0	10.9	47.0	38.7	19.6
10th grade	60.0	49.4	25.2	66.9	60.0	35.4
12th grade	75.3	64.1	38.7	78.4	71.5	48.6

*Low precision; no estimate reported.
-- Not available.

MTF = Monitoring the Future.

Sources: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.
The Monitoring the Future Study, University of Michigan, 2002.

Table E.2 Lifetime, Past Year, and Past Month Marijuana Use among Youths Aged 12 to 18 in NSPY and NSDUH, by Age Group: 2002

Use Measure	Age Group	Percent Reporting Use	
		NSPY	NSDUH (January-June)
Lifetime	12 to 13	4.9	4.4
	14 to 15	19.5	19.8
	16 to 18	38.9	43.0
	12 to 18	23.0	25.3
Past Year	12 to 13	3.2	2.8
	14 to 15	13.2	16.6
	16 to 18	26.3	31.6
	12 to 18	15.5	19.1
Past Month	12 to 13	1.1	1.4
	14 to 15	6.2	8.1
	16 to 18	15.3	17.1
	12 to 18	8.4	10.0

NSPY = National Survey of Parents and Youth.

Sources: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.
National Institute on Drug Abuse, National Survey of Parents and Youth, January–June 2002.

Table E.3 Past Month Cigarette Use among Persons Aged 18 or Older in NHIS and NSDUH, by Gender and Age Group: Percentages, 2002

Gender/Age	NHIS (January – September)	NSDUH (January – September)
Total	22.5	25.6
18 to 44	26.6	31.4
45 to 64	22.4	23.6
65 or Older	9.1	9.8
Male	25.3	28.8
18 to 44	29.9	34.2
45 to 64	24.2	26.9
65 or Older	10.2	12.3
Female	19.9	22.7
18 to 44	23.4	28.7
45 to 64	20.7	20.5
65 or Older	8.3	7.9

Note: For the NHIS, *past month cigarette use* is defined as currently smoking daily or smoking 1 or more days in the past month or quitting smoking less than 30 days ago (for those who smoked 100+ cigarette in lifetime). The analysis excluded those with unknown use status (about 1 percent each year). For NSDUH, *past month cigarette use* is defined as having smoked in the past month. For comparison purposes, the NSDUH definition was adjusted to include those that have smoked in the past month and smoked at least 100 cigarettes in their lifetime.

NHIS = National Health Interview Survey.

Sources: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.
National Center for Health Statistics, National Health Interview Survey, 2002.

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Appendix G: Sample Size and Population Tables

30403 (8.1N)

Table G.1 Survey Sample Size for All Respondents Aged 12 or Older, by Gender and Detailed Age Categories: 2002

Age Category	Total	GENDER	
		Male	Female
Total	68,126	32,767	35,359
12	3,992	2,015	1,977
13	4,027	2,112	1,915
14	4,149	2,079	2,070
15	3,896	1,989	1,907
16	3,812	1,946	1,866
17	3,769	1,912	1,857
18	3,231	1,601	1,630
19	3,069	1,473	1,596
20	2,842	1,321	1,521
21	2,962	1,373	1,589
22	2,823	1,321	1,502
23	2,812	1,309	1,503
24	2,739	1,248	1,491
25	2,588	1,139	1,449
26-29	2,807	1,299	1,508
30-34	3,567	1,684	1,883
35-39	3,182	1,511	1,671
40-44	3,285	1,529	1,756
45-49	3,153	1,495	1,658
50-54	1,327	600	727
55-59	1,034	463	571
60-64	821	371	450
65 or Older	2,239	977	1,262

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30403 (8.1A)

Table G.2 Numbers (in Thousands) of Persons Aged 12 or Older, by Gender and Detailed Age Categories: 2002

Age Category	Total	GENDER	
		Male	Female
Total	235,143	113,602	121,541
12	4,099	2,091	2,007
13	4,187	2,240	1,947
14	4,358	2,135	2,223
15	4,112	2,134	1,978
16	4,047	2,041	2,007
17	3,950	2,005	1,945
18	4,363	2,236	2,127
19	4,087	2,044	2,042
20	3,997	2,058	1,939
21	4,048	2,021	2,026
22	3,867	1,962	1,906
23	3,810	1,944	1,866
24	3,523	1,717	1,806
25	3,329	1,545	1,784
26-29	15,271	7,472	7,799
30-34	19,892	9,942	9,950
35-39	21,999	10,856	11,143
40-44	21,939	10,537	11,402
45-49	21,186	10,519	10,667
50-54	18,796	9,028	9,767
55-59	14,696	6,689	8,007
60-64	11,610	5,820	5,790
65 or Older	33,977	14,564	19,413

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

Table G.3 Survey Sample Size for All Respondents Aged 12 or Older, by Age Groups and Demographic Characteristics: 2002

Demographic Characteristic	Total	AGE GROUP (Years)		
		12-17	18-25	26 or Older
TOTAL	68,126	23,645	23,066	21,415
GENDER				
Male	32,767	12,053	10,785	9,929
Female	35,359	11,592	12,281	11,486
HISPANIC ORIGIN AND RACE				
Not Hispanic or Latino	59,315	20,381	19,727	19,207
White	46,548	15,637	15,211	15,700
Black or African American	8,278	3,154	2,892	2,232
American Indian or Alaska Native	921	344	316	261
Native Hawaiian or Other Pacific Islander	273	83	108	82
Asian	1,890	587	689	614
Two or More Races	1,405	576	511	318
Hispanic or Latino	8,811	3,264	3,339	2,208
GENDER/RACE/HISPANIC ORIGIN				
Male - White	22,679	8,073	7,243	7,363
Female - White	23,869	7,564	7,968	8,337
Male - Black or African American	3,675	1,567	1,164	944
Female - Black or African American	4,603	1,587	1,728	1,288
Male - Hispanic or Latino	4,265	1,608	1,604	1,053
Female - Hispanic or Latino	4,546	1,656	1,735	1,155
EDUCATION[1]				
< High School	8,012	N/A	4,779	3,233
High School Graduate	15,053	N/A	8,109	6,944
Some College	12,688	N/A	7,381	5,307
College Graduate	8,728	N/A	2,797	5,931
CURRENT EMPLOYMENT[1]				
Full-Time	24,550	N/A	10,933	13,617
Part-Time	8,203	N/A	5,848	2,355
Unemployed	2,407	N/A	1,731	676
Other[2]	9,321	N/A	4,554	4,767

N/A: Not applicable.

[1] Data on education and current employment not shown for persons aged 12 to 17. Estimates for both education and current employment are for persons aged ≥ 18.

[2] Retired person, disabled person, homemaker, student, or other person not in the labor force.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30404 (8.2A)

Table G.4 Numbers (in Thousands) of Persons Aged 12 or Older, by Age Groups and Demographic Characteristics: 2002

Demographic Characteristic	Total	AGE GROUP (Years)		
		12-17	18-25	26 or Older
TOTAL	235,143	24,754	31,024	179,365
GENDER				
Male	113,602	12,647	15,528	85,428
Female	121,541	12,107	15,497	93,938
HISPANIC ORIGIN AND RACE				
Not Hispanic or Latino	206,064	20,823	25,536	159,705
White	165,392	15,532	19,307	130,553
Black or African American	26,809	3,618	4,071	19,120
American Indian or Alaska Native	1,479	189	215	1,075
Native Hawaiian or Other Pacific Islander	813	82	170	562
Asian	9,059	1,012	1,370	6,677
Two or More Races	2,512	392	404	1,717
Hispanic or Latino	29,079	3,930	5,488	19,661
GENDER/RACE/HISPANIC ORIGIN				
Male - White	80,066	7,970	9,629	62,466
Female - White	85,326	7,562	9,678	68,087
Male - Black or African American	12,048	1,820	1,894	8,334
Female - Black or African American	14,761	1,798	2,177	10,786
Male - Hispanic or Latino	14,862	2,010	2,949	9,904
Female - Hispanic or Latino	14,216	1,920	2,539	9,757
EDUCATION[1]				
< High School	37,226	N/A	6,877	30,349
High School Graduate	67,985	N/A	10,580	57,405
Some College	52,574	N/A	9,774	42,800
College Graduate	52,605	N/A	3,793	48,811
CURRENT EMPLOYMENT[1]				
Full-Time	116,508	N/A	14,494	102,015
Part-Time	27,442	N/A	7,903	19,539
Unemployed	7,585	N/A	2,457	5,129
Other[2]	58,854	N/A	6,171	52,683

N/A: Not applicable.

[1] Data on education and current employment not shown for persons aged 12 to 17. Estimates for both education and current employment are for persons aged ≥18.

[2] Retired person, disabled person, homemaker, student, or other person not in the labor force.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

Table G.5 Survey Sample Size for All Respondents Aged 12 or Older, by Age Groups and Geographic Characteristics: 2002

Geographic Characteristic	Total	AGE GROUP (Years)		
		12-17	18-25	26 or Older
TOTAL	68,126	23,645	23,066	21,415
GEOGRAPHIC DIVISION				
Northeast	13,706	4,718	4,786	4,202
New England	5,530	1,946	1,866	1,718
Middle Atlantic	8,176	2,772	2,920	2,484
Midwest	19,180	6,645	6,604	5,931
East North Central	12,907	4,423	4,537	3,947
West North Central	6,273	2,222	2,067	1,984
South	20,900	7,262	6,908	6,730
South Atlantic	10,894	3,757	3,673	3,464
East South Central	3,628	1,325	1,105	1,198
West South Central	6,378	2,180	2,130	2,068
West	14,340	5,020	4,768	4,552
Mountain	7,083	2,471	2,363	2,249
Pacific	7,257	2,549	2,405	2,303
COUNTY TYPE				
Large Metro	26,792	9,378	8,843	8,571
Small Metro	23,944	8,016	8,571	7,357
250K - 1 Mil. Pop.	16,902	5,755	5,926	5,221
<250K Pop.	7,042	2,261	2,645	2,136
Nonmetro	17,390	6,251	5,652	5,487
Urbanized	6,012	1,970	2,196	1,846
Less Urbanized	9,433	3,485	2,958	2,990
Completely Rural	1,945	796	498	651

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30403 (8.8A)

Table G.6 Numbers (in Thousands) of Persons Aged 12 or Older, by Age Groups and Geographic Characteristics: 2002

Geographic Characteristic	Total	AGE GROUP (Years) 12-17	18-25	26 or Older
TOTAL	235,143	24,754	31,024	179,365
GEOGRAPHIC DIVISION				
Northeast	45,064	4,460	5,505	35,099
New England	11,806	1,157	1,434	9,216
Middle Atlantic	33,257	3,303	4,072	25,883
Midwest	53,427	5,690	7,200	40,537
East North Central	37,414	3,986	4,974	28,454
West North Central	16,013	1,704	2,226	12,084
South	83,770	8,774	11,024	63,973
South Atlantic	43,760	4,396	5,392	33,972
East South Central	14,156	1,426	1,912	10,817
West South Central	25,854	2,951	3,720	19,183
West	52,882	5,830	7,295	39,757
Mountain	15,313	1,706	2,183	11,424
Pacific	37,569	4,124	5,112	28,333
COUNTY TYPE				
Large Metro	117,296	12,429	14,761	90,106
Small Metro	70,813	7,365	10,453	52,995
250K - 1 Mil. Pop.	51,686	5,469	7,418	38,798
<250K Pop.	19,128	1,896	3,035	14,197
Nonmetro	47,034	4,959	5,810	36,265
Urbanized	14,855	1,544	2,124	11,187
Less Urbanized	26,965	2,855	3,164	20,946
Completely Rural	5,214	561	522	4,132

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

Appendix H: Selected Prevalence Tables

30415 (1.1A)

Table H.1 Illicit Drug Use in Lifetime, Past Year, and Past Month among Persons Aged 12 or Older: Numbers in Thousands, 2002

	TIME PERIOD		
Drug	**Lifetime**	**Past Year**	**Past Month**
Any Illicit Drug[1]	108,255	35,132	19,522
Marijuana and Hashish	94,946	25,755	14,584
Cocaine	33,910	5,902	2,020
Crack	8,402	1,554	567
Heroin	3,668	404	166
Hallucinogens	34,314	4,749	1,196
LSD	24,516	999	112
PCP	7,418	235	58
Ecstasy	10,150	3,167	676
Inhalants	22,870	2,084	635
Nonmedical Use of Any Psychotherapeutic[2]	46,558	14,680	6,210
Pain Relievers	29,611	10,992	4,377
Tranquilizers	19,267	4,849	1,804
Stimulants	21,072	3,181	1,218
Methamphetamine	12,383	1,541	597
Sedatives	9,960	981	436
Any Illicit Drug Other Than Marijuana[1]	70,300	20,423	8,777

*Low precision; no estimate reported.

[1] Any Illicit Drug includes marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically. Any Illicit Drug Other Than Marijuana includes cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically.

[2] Nonmedical use of any prescription-type pain reliever, tranquilizer, stimulant, or sedative; does not include over-the-counter drugs.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30415 (1.1B)

Table H.2 Illicit Drug Use in Lifetime, Past Year, and Past Month among Persons Aged 12 or Older: Percentages, 2002

	TIME PERIOD		
Drug	**Lifetime**	**Past Year**	**Past Month**
Any Illicit Drug[1]	46.0	14.9	8.3
Marijuana and Hashish	40.4	11.0	6.2
Cocaine	14.4	2.5	0.9
Crack	3.6	0.7	0.2
Heroin	1.6	0.2	0.1
Hallucinogens	14.6	2.0	0.5
LSD	10.4	0.4	0.0
PCP	3.2	0.1	0.0
Ecstasy	4.3	1.3	0.3
Inhalants	9.7	0.9	0.3
Nonmedical Use of Any Psychotherapeutic[2]	19.8	6.2	2.6
Pain Relievers	12.6	4.7	1.9
Tranquilizers	8.2	2.1	0.8
Stimulants	9.0	1.4	0.5
Methamphetamine	5.3	0.7	0.3
Sedatives	4.2	0.4	0.2
Any Illicit Drug Other Than Marijuana[1]	29.9	8.7	3.7

*Low precision; no estimate reported.

[1] Any Illicit Drug includes marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically. Any Illicit Drug Other Than Marijuana includes cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically.

[2] Nonmedical use of any prescription-type pain reliever, tranquilizer, stimulant, or sedative; does not include over-the-counter drugs.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30415 (1.2B)

Table H.3 Illicit Drug Use in Lifetime, Past Year, and Past Month among Persons Aged 12 to 17: Percentages, 2002

Drug	TIME PERIOD		
	Lifetime	**Past Year**	**Past Month**
Any Illicit Drug[1]	30.9	22.2	11.6
Marijuana and Hashish	20.6	15.8	8.2
Cocaine	2.7	2.1	0.6
Crack	0.7	0.4	0.1
Heroin	0.4	0.2	0.0
Hallucinogens	5.7	3.8	1.0
LSD	2.7	1.3	0.2
PCP	0.9	0.4	0.1
Ecstasy	3.3	2.2	0.5
Inhalants	10.5	4.4	1.2
Nonmedical Use of Any Psychotherapeutic[2]	13.7	9.2	4.0
Pain Relievers	11.2	7.6	3.2
Tranquilizers	3.4	2.3	0.8
Stimulants	4.3	2.6	0.8
Methamphetamine	1.5	0.9	0.3
Sedatives	1.0	0.6	0.2
Any Illicit Drug Other Than Marijuana[1]	21.4	13.5	5.7

*Low precision; no estimate reported.

[1] Any Illicit Drug includes marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically. Any Illicit Drug Other Than Marijuana includes cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically.

[2] Nonmedical use of any prescription-type pain reliever, tranquilizer, stimulant, or sedative; does not include over-the-counter drugs.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30415 (1.3B)

Table H.4 Illicit Drug Use in Lifetime, Past Year, and Past Month among Persons Aged 18 to 25: Percentages, 2002

Drug	TIME PERIOD		
	Lifetime	Past Year	Past Month
Any Illicit Drug[1]	59.8	35.5	20.2
Marijuana and Hashish	53.8	29.8	17.3
Cocaine	15.4	6.7	2.0
Crack	3.8	0.9	0.2
Heroin	1.6	0.4	0.1
Hallucinogens	24.2	8.4	1.9
LSD	15.9	1.8	0.1
PCP	2.7	0.3	0.0
Ecstasy	15.1	5.8	1.1
Inhalants	15.7	2.2	0.5
Nonmedical Use of Any Psychotherapeutic[2]	27.7	14.2	5.4
Pain Relievers	22.1	11.4	4.1
Tranquilizers	11.2	4.9	1.6
Stimulants	10.8	3.7	1.2
Methamphetamine	5.7	1.7	0.5
Sedatives	2.1	0.5	0.2
Any Illicit Drug Other Than Marijuana[1]	40.1	20.2	7.9

*Low precision; no estimate reported.

[1] Any Illicit Drug includes marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically. Any Illicit Drug Other Than Marijuana includes cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically.

[2] Nonmedical use of any prescription-type pain reliever, tranquilizer, stimulant, or sedative; does not include over-the-counter drugs.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30415 (1.4B)

Table H.5 **Illicit Drug Use in Lifetime, Past Year, and Past Month among Persons Aged 26 or Older: Percentages, 2002**

Drug	TIME PERIOD		
	Lifetime	Past Year	Past Month
Any Illicit Drug[1]	45.7	10.4	5.8
Marijuana and Hashish	40.8	7.0	4.0
Cocaine	15.9	1.8	0.7
Crack	3.9	0.7	0.3
Heroin	1.7	0.1	0.1
Hallucinogens	14.1	0.7	0.2
LSD	10.5	0.1	0.0
PCP	3.5	0.0	0.0
Ecstasy	2.6	0.5	0.1
Inhalants	8.6	0.2	0.1
Nonmedical Use of Any Psychotherapeutic[2]	19.3	4.5	2.0
Pain Relievers	11.1	3.1	1.3
Tranquilizers	8.3	1.5	0.6
Stimulants	9.3	0.8	0.4
Methamphetamine	5.7	0.4	0.2
Sedatives	5.1	0.4	0.2
Any Illicit Drug Other Than Marijuana[1]	29.3	6.0	2.7

*Low precision; no estimate reported.

[1] Any Illicit Drug includes marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically. Any Illicit Drug Other Than Marijuana includes cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically.

[2] Nonmedical use of any prescription-type pain reliever, tranquilizer, stimulant, or sedative; does not include over-the-counter drugs.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30416 (1.19B)

Table H.6 Any Illicit Drug Use in Lifetime, Past Year, and Past Month, by Detailed Age Categories: Percentages, 2002

Age Category	TIME PERIOD		
	Lifetime	Past Year	Past Month
Total	46.0	14.9	8.3
12	12.4	7.1	3.3
13	18.0	11.2	5.1
14	26.7	18.9	9.1
15	35.3	26.1	13.3
16	43.7	32.6	17.5
17	50.6	38.5	22.1
18	54.5	40.3	22.3
19	57.5	39.6	22.3
20	59.7	38.4	22.8
21	66.8	39.4	21.7
22	60.4	33.7	19.4
23	61.9	33.5	19.4
24	59.7	29.2	17.0
25	58.4	26.7	15.0
26-29	57.4	22.4	12.8
30-34	59.0	17.2	8.8
35-39	61.0	15.5	8.6
40-44	66.4	14.4	7.8
45-49	60.9	12.3	7.5
50-54	51.1	6.5	3.4
55-59	35.0	3.3	1.9
60-64	23.7	4.1	2.5
65 or Older	9.2	1.3	0.8

*Low precision; no estimate reported.

NOTE: Any Illicit Drug includes marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30415 (1.26B)

Table H.7 **Any Illicit Drug Use in Lifetime, Past Year, and Past Month among Persons Aged 12 or Older, by Demographic Characteristics: Percentages, 2002**

Demographic Characteristic	TIME PERIOD		
	Lifetime	**Past Year**	**Past Month**
TOTAL	46.0	14.9	8.3
AGE			
12-17	30.9	22.2	11.6
18-25	59.8	35.5	20.2
26 or Older	45.7	10.4	5.8
GENDER			
Male	50.7	17.6	10.3
Female	41.7	12.5	6.4
HISPANIC ORIGIN AND RACE			
Not Hispanic or Latino	47.0	14.9	8.5
White	48.5	14.9	8.5
Black or African American	43.8	16.8	9.7
American Indian or Alaska Native	58.4	19.4	10.1
Native Hawaiian or Other Pacific Islander	*	17.0	7.9
Asian	25.6	7.6	3.5
Two or More Races	54.0	20.9	11.4
Hispanic or Latino	38.9	15.0	7.2

*Low precision; no estimate reported.

NOTE: Any Illicit Drug includes marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30415 (1.27B)

Table H.8 **Any Illicit Drug Use in Lifetime, Past Year, and Past Month among Persons Aged 12 to 17, by Demographic Characteristics: Percentages, 2002**

Demographic Characteristic	TIME PERIOD		
	Lifetime	Past Year	Past Month
TOTAL	30.9	22.2	11.6
GENDER			
Male	31.9	22.5	12.3
Female	29.8	21.9	10.9
HISPANIC ORIGIN AND RACE			
Not Hispanic or Latino	30.8	22.5	11.8
White	31.8	24.0	12.6
Black or African American	29.1	18.5	10.0
American Indian or Alaska Native	51.8	35.5	20.9
Native Hawaiian or Other Pacific Islander	*	*	*
Asian	17.6	10.6	4.8
Two or More Races	31.4	23.8	12.5
Hispanic or Latino	31.1	20.8	10.7
GENDER/RACE/HISPANIC ORIGIN			
Male - White	32.9	24.2	13.1
Female - White	30.7	23.8	12.0
Male - Black or African American	30.8	19.3	11.0
Female - Black or African American	27.4	17.7	8.9
Male - Hispanic or Latino	32.0	21.1	12.4
Female - Hispanic or Latino	30.0	20.4	8.8

*Low precision; no estimate reported.

NOTE: Any Illicit Drug includes marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30415 (1.28B)

Table H.9 **Any Illicit Drug Use in Lifetime, Past Year, and Past Month among Persons Aged 18 to 25, by Demographic Characteristics: Percentages, 2002**

Demographic Characteristic	TIME PERIOD		
	Lifetime	Past Year	Past Month
TOTAL	59.8	35.5	20.2
GENDER			
Male	62.6	39.3	24.0
Female	57.1	31.6	16.4
HISPANIC ORIGIN AND RACE			
Not Hispanic or Latino	61.8	37.3	21.5
White	64.9	39.6	22.9
Black or African American	53.7	30.9	18.2
American Indian or Alaska Native	79.2	49.4	29.5
Native Hawaiian or Other Pacific Islander	*	*	*
Asian	34.9	18.6	8.9
Two or More Races	76.3	48.8	29.3
Hispanic or Latino	50.7	27.0	14.2
EDUCATION			
< High School	59.5	36.7	22.5
High School Graduate	60.6	34.7	19.8
Some College	60.6	37.7	21.0
College Graduate	56.3	29.7	15.0
CURRENT EMPLOYMENT			
Full-Time	62.1	34.4	19.7
Part-Time	58.1	36.7	20.5
Unemployed	64.9	43.7	26.2
Other[1]	54.6	33.0	18.5

*Low precision; no estimate reported.

NOTE: Any Illicit Drug includes marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically.

[1] Retired person, disabled person, homemaker, student, or other person not in the labor force.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

Table H.10 Any Illicit Drug Use in Lifetime, Past Year, and Past Month among Persons Aged 26 or Older, by Demographic Characteristics: Percentages, 2002

Demographic Characteristic	TIME PERIOD		
	Lifetime	Past Year	Past Month
TOTAL	45.7	10.4	5.8
GENDER			
Male	51.3	12.9	7.5
Female	40.7	8.1	4.2
HISPANIC ORIGIN AND RACE			
Not Hispanic or Latino	46.8	10.4	5.9
White	48.1	10.2	5.9
Black or African American	44.4	13.5	7.8
American Indian or Alaska Native	*	10.5	4.3
Native Hawaiian or Other Pacific Islander	*	*	*
Asian	25.0	4.8	2.2
Two or More Races	53.9	13.7	6.9
Hispanic or Latino	37.2	10.5	4.5
EDUCATION			
< High School	32.0	10.2	6.0
High School Graduate	43.6	10.1	5.8
Some College	53.4	11.6	6.4
College Graduate	50.1	9.8	5.0
CURRENT EMPLOYMENT			
Full-Time	55.8	12.3	6.5
Part-Time	48.7	11.3	6.5
Unemployed	59.8	22.3	13.2
Other[1]	23.8	5.3	3.3

*Low precision; no estimate reported.

NOTE: Any Illicit Drug includes marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically.

[1] Retired person, disabled person, homemaker, student, or other person not in the labor force.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30404 (2.1A)

Table H.11 **Tobacco and Alcohol Use in Lifetime, Past Year, and Past Month among Persons Aged 12 or Older: Numbers in Thousands, 2002**

Drug	TIME PERIOD		
	Lifetime	**Past Year**	**Past Month**
Any Tobacco[1]	171,838	84,731	71,499
Cigarettes	162,553	71,310	61,136
Smokeless Tobacco	46,870	10,577	7,787
Cigars	88,053	25,928	12,751
Pipes[2]	40,003	--	1,816
Alcohol	195,452	155,476	119,820
Binge Alcohol Use[3]	--	--	53,787
Heavy Alcohol Use[3]	--	--	15,860

*Low precision; no estimate reported.

-- Not available.

[1] Any Tobacco product includes cigarettes, smokeless tobacco (i.e., chewing tobacco or snuff), cigars, or pipe tobacco. Any Tobacco use in the past year excludes past year pipe tobacco use, but includes past month pipe tobacco use.

[2] Information about past year use of pipe tobacco was not collected.

[3] Binge Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days. Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion on each of 5 or more days in the past 30 days; all Heavy Alcohol Users are also Binge Alcohol Users.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30404 (2.1B)

Table H.12 Tobacco and Alcohol Use in Lifetime, Past Year, and Past Month among Persons Aged 12 or Older: Percentages, 2002

	TIME PERIOD		
Drug	**Lifetime**	**Past Year**	**Past Month**
Any Tobacco[1]	73.1	36.0	30.4
Cigarettes	69.1	30.3	26.0
Smokeless Tobacco	19.9	4.5	3.3
Cigars	37.4	11.0	5.4
Pipes[2]	17.0	--	0.8
Alcohol	83.1	66.1	51.0
Binge Alcohol Use[3]	--	--	22.9
Heavy Alcohol Use[3]	--	--	6.7

*Low precision; no estimate reported.

-- Not available.

[1] Any Tobacco product includes cigarettes, smokeless tobacco (i.e., chewing tobacco or snuff), cigars, or pipe tobacco. Any Tobacco use in the past year excludes past year pipe tobacco use, but includes past month pipe tobacco use.

[2] Information about past year use of pipe tobacco was not collected.

[3] Binge Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days. Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion on each of 5 or more days in the past 30 days; all Heavy Alcohol Users are also Binge Alcohol Users.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

Table H.13 Tobacco and Alcohol Use in Lifetime, Past Year, and Past Month among Persons Aged 12 to 17: Percentages, 2002

	TIME PERIOD		
Drug	**Lifetime**	**Past Year**	**Past Month**
Any Tobacco[1]	36.8	23.6	15.2
Cigarettes	33.3	20.3	13.0
Smokeless Tobacco	8.0	4.3	2.0
Cigars	16.3	10.1	4.5
Pipes[2]	2.8	--	0.6
Alcohol	43.4	34.6	17.6
Binge Alcohol Use[3]	--	--	10.7
Heavy Alcohol Use[3]	--	--	2.5

*Low precision; no estimate reported.

-- Not available.

[1] Any Tobacco product includes cigarettes, smokeless tobacco (i.e., chewing tobacco or snuff), cigars, or pipe tobacco. Any Tobacco use in the past year excludes past year pipe tobacco use, but includes past month pipe tobacco use.

[2] Information about past year use of pipe tobacco was not collected.

[3] Binge Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days. Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion on each of 5 or more days in the past 30 days; all Heavy Alcohol Users are also Binge Alcohol Users.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30404 (2.3B)

Table H.14 Tobacco and Alcohol Use in Lifetime, Past Year, and Past Month among Persons Aged 18 to 25: Percentages, 2002

	TIME PERIOD		
Drug	**Lifetime**	**Past Year**	**Past Month**
Any Tobacco[1]	75.5	54.9	45.3
Cigarettes	71.2	49.0	40.8
Smokeless Tobacco	23.7	8.0	4.8
Cigars	45.6	22.7	11.0
Pipes[2]	8.0	--	1.1
Alcohol	86.7	77.9	60.5
Binge Alcohol Use[3]	--	--	40.9
Heavy Alcohol Use[3]	--	--	14.9

*Low precision; no estimate reported.

-- Not available.

[1] Any Tobacco product includes cigarettes, smokeless tobacco (i.e., chewing tobacco or snuff), cigars, or pipe tobacco. Any Tobacco use in the past year excludes past year pipe tobacco use, but includes past month pipe tobacco use.

[2] Information about past year use of pipe tobacco was not collected.

[3] Binge Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days. Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion on each of 5 or more days in the past 30 days; all Heavy Alcohol Users are also Binge Alcohol Users.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30404 (2.4B)

Table H.15 Tobacco and Alcohol Use in Lifetime, Past Year, and Past Month among Persons Aged 26 or Older: Percentages, 2002

	TIME PERIOD		
Drug	**Lifetime**	**Past Year**	**Past Month**
Any Tobacco[1]	77.7	34.5	29.9
Cigarettes	73.7	28.5	25.2
Smokeless Tobacco	20.9	3.9	3.2
Cigars	39.0	9.1	4.6
Pipes[2]	20.5	--	0.8
Alcohol	88.0	68.4	53.9
Binge Alcohol Use[3]	--	--	21.4
Heavy Alcohol Use[3]	--	--	5.9

*Low precision; no estimate reported.

-- Not available.

[1] Any Tobacco product includes cigarettes, smokeless tobacco (i.e., chewing tobacco or snuff), cigars, or pipe tobacco. Any Tobacco use in the past year excludes past year pipe tobacco use, but includes past month pipe tobacco use.

[2] Information about past year use of pipe tobacco was not collected.

[3] Binge Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days. Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion on each of 5 or more days in the past 30 days; all Heavy Alcohol Users are also Binge Alcohol Users.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30404 (2.24B)

Table H.16 Alcohol Use, Binge Alcohol Use, and Heavy Alcohol Use in the Past Month, by Detailed Age Categories: Percentages, 2002

	TYPE OF ALCOHOL USE		
Age Category	**Any Alcohol Use**	**Binge Alcohol Use**	**Heavy Alcohol Use**
Total	51.0	22.9	6.7
12	2.0	0.8	0.0
13	6.5	2.8	0.5
14	13.4	7.0	1.4
15	19.9	11.6	2.4
16	29.0	17.9	4.0
17	36.2	25.0	7.2
18	46.3	32.6	11.2
19	51.6	38.3	14.1
20	55.5	38.7	15.1
21	70.9	50.2	20.1
22	67.0	46.1	17.0
23	66.2	43.5	16.6
24	64.9	39.4	13.2
25	64.4	39.3	11.6
26-29	61.5	35.5	10.5
30-34	61.3	31.3	7.9
35-39	60.0	29.1	7.8
40-44	60.3	26.9	6.6
45-49	58.8	22.5	7.7
50-54	52.7	18.1	5.7
55-59	50.9	13.7	3.8
60-64	49.9	15.2	4.7
65 or Older	38.3	7.5	1.4

*Low precision; no estimate reported.

NOTE: Binge Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days. Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion on each of 5 or more days in the past 30 days; all Heavy Alcohol Users are also Binge Alcohol Users.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30407 (2.50B)

Table H.17 Alcohol Use, Binge Alcohol Use, and Heavy Alcohol Use in the Past Month among Persons Aged 12 or Older, by Demographic Characteristics: Percentages, 2002

Demographic Characteristic	TYPE OF ALCOHOL USE		
	Any Alcohol Use	Binge Alcohol Use	Heavy Alcohol Use
TOTAL	51.0	22.9	6.7
AGE			
12-17	17.6	10.7	2.5
18-25	60.5	40.9	14.9
26 or Older	53.9	21.4	5.9
GENDER			
Male	57.4	31.2	10.8
Female	44.9	15.1	3.0
HISPANIC ORIGIN AND RACE			
Not Hispanic or Latino	52.1	22.6	6.9
White	55.0	23.4	7.5
Black or African American	39.9	21.0	4.4
American Indian or Alaska Native	44.7	27.9	8.7
Native Hawaiian or Other Pacific Islander	*	25.2	8.3
Asian	37.1	12.4	2.6
Two or More Races	49.9	19.8	7.5
Hispanic or Latino	42.8	24.8	5.9

*Low precision; no estimate reported.

NOTE: Binge Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days. Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion on each of 5 or more days in the past 30 days; all Heavy Alcohol Users are also Binge Alcohol Users.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30407 (2.51B)

Table H.18 Alcohol Use, Binge Alcohol Use, and Heavy Alcohol Use in the Past Month among Persons Aged 12 to 17, by Demographic Characteristics: Percentages, 2002

Demographic Characteristic	TYPE OF ALCOHOL USE		
	Any Alcohol Use	Binge Alcohol Use	Heavy Alcohol Use
TOTAL	17.6	10.7	2.5
GENDER			
Male	17.4	11.4	3.1
Female	17.9	9.9	1.9
HISPANIC ORIGIN AND RACE			
Not Hispanic or Latino	17.8	10.7	2.6
White	20.1	12.5	3.2
Black or African American	10.9	4.9	0.6
American Indian or Alaska Native	22.6	18.2	2.9
Native Hawaiian or Other Pacific Islander	*	*	*
Asian	7.4	3.2	0.1
Two or More Races	15.1	8.6	2.9
Hispanic or Latino	16.6	10.5	2.2
GENDER/RACE/HISPANIC ORIGIN			
Male - White	19.8	13.6	4.0
Female - White	20.4	11.4	2.5
Male - Black or African American	11.1	5.2	0.8
Female - Black or African American	10.8	4.7	0.4
Male - Hispanic or Latino	16.8	11.1	2.6
Female - Hispanic or Latino	16.4	9.8	1.8

*Low precision; no estimate reported.

NOTE: Binge Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days. Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion on each of 5 or more days in the past 30 days; all Heavy Alcohol Users are also Binge Alcohol Users.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30407 (2.52B)

Table H.19 Alcohol Use, Binge Alcohol Use, and Heavy Alcohol Use in the Past Month among Persons Aged 18 to 25, by Demographic Characteristics: Percentages, 2002

	TYPE OF ALCOHOL USE		
Demographic Characteristic	**Any Alcohol Use**	**Binge Alcohol Use**	**Heavy Alcohol Use**
TOTAL	60.5	40.9	14.9
GENDER			
Male	65.2	50.2	21.1
Female	55.7	31.7	8.7
HISPANIC ORIGIN AND RACE			
Not Hispanic or Latino	62.7	42.3	16.2
White	66.8	46.8	19.0
Black or African American	48.3	26.2	5.9
American Indian or Alaska Native	60.0	44.1	10.6
Native Hawaiian or Other Pacific Islander	*	*	*
Asian	49.9	24.6	7.0
Two or More Races	64.0	44.4	19.5
Hispanic or Latino	49.8	34.8	9.1
EDUCATION			
< High School	48.2	36.7	11.1
High School Graduate	55.9	38.4	13.8
Some College	68.0	45.2	18.0
College Graduate	76.0	44.7	17.0
CURRENT EMPLOYMENT			
Full-Time	66.4	45.4	15.9
Part-Time	59.1	39.1	14.9
Unemployed	56.7	41.4	16.0
Other[1]	49.9	32.4	12.1

*Low precision; no estimate reported.

NOTE: Binge Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days. Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion on each of 5 or more days in the past 30 days; all Heavy Alcohol Users are also Binge Alcohol Users.

[1] Retired person, disabled person, homemaker, student, or other person not in the labor force.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30407 (2.53B)

Table H.20 Alcohol Use, Binge Alcohol Use, and Heavy Alcohol Use in the Past Month among Persons Aged 26 or Older, by Demographic Characteristics: Percentages, 2002

Demographic Characteristic	TYPE OF ALCOHOL USE		
	Any Alcohol Use	Binge Alcohol Use	Heavy Alcohol Use
TOTAL	53.9	21.4	5.9
GENDER			
Male	61.9	30.7	10.0
Female	46.6	13.0	2.2
HISPANIC ORIGIN AND RACE			
Not Hispanic or Latino	54.9	21.0	5.9
White	57.5	21.3	6.3
Black or African American	43.6	22.9	4.8
American Indian or Alaska Native	45.5	26.4	9.3
Native Hawaiian or Other Pacific Islander	*	*	*
Asian	39.0	11.2	2.1
Two or More Races	54.4	16.5	5.8
Hispanic or Latino	46.1	24.9	5.8
EDUCATION			
< High School	35.5	21.2	7.0
High School Graduate	50.7	23.6	6.5
Some College	56.7	21.6	6.0
College Graduate	66.7	18.9	4.5
CURRENT EMPLOYMENT			
Full-Time	61.2	26.7	7.4
Part-Time	58.5	19.9	4.8
Unemployed	58.4	31.5	12.1
Other[1]	37.7	10.9	2.9

*Low precision; no estimate reported.

NOTE: Binge Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days. Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion on each of 5 or more days in the past 30 days; all Heavy Alcohol Users are also Binge Alcohol Users.

[1] Retired person, disabled person, homemaker, student, or other person not in the labor force.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30407 (2.102B)

Table H.21 **Alcohol Use, Binge Alcohol Use, and Heavy Alcohol Use in the Past Month among Persons Aged 12 to 20, by Demographic Characteristics: Percentages, 2002**

Demographic Characteristic	TYPE OF ALCOHOL USE		
	Any Alcohol Use	**Binge Alcohol Use**	**Heavy Alcohol Use**
TOTAL	28.8	19.3	6.2
GENDER			
Male	29.6	21.8	8.1
Female	28.0	16.7	4.2
HISPANIC ORIGIN AND RACE			
Not Hispanic or Latino	29.5	19.8	6.5
White	32.8	22.7	7.9
Black or African American	19.3	9.8	2.0
American Indian or Alaska Native	32.4	22.6	3.1
Native Hawaiian or Other Pacific Islander	*	*	1.5
Asian	15.5	8.6	1.8
Two or More Races	28.1	19.8	8.2
Hispanic or Latino	25.0	16.8	4.3
GENDER/RACE/HISPANIC ORIGIN			
Male - White	33.3	25.4	10.3
Female - White	32.2	19.9	5.4
Male - Black or African American	20.1	11.0	2.7
Female - Black or African American	18.4	8.5	1.2
Male - Hispanic or Latino	27.1	20.1	5.6
Female - Hispanic or Latino	22.6	13.1	2.8

*Low precision; no estimate reported.

NOTE: Binge Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days. Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion on each of 5 or more days in the past 30 days; all Heavy Alcohol Users are also Binge Alcohol Users.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30404 (2.20B)

Table H.22 **Cigarette Use in Lifetime, Past Year, and Past Month, by Detailed Age Categories: Percentages, 2002**

Age Category	TIME PERIOD		
	Lifetime	Past Year	Past Month
Total	69.1	30.3	26.0
12	9.2	4.4	1.7
13	18.7	10.0	4.7
14	28.5	16.2	8.5
15	39.7	23.4	14.1
16	48.4	31.2	21.9
17	56.9	38.2	28.1
18	65.4	46.2	35.8
19	66.6	47.1	38.7
20	71.2	50.7	41.8
21	74.4	54.0	46.2
22	74.1	51.1	42.2
23	74.7	50.8	44.1
24	72.2	46.9	39.4
25	72.4	45.0	38.1
26-29	72.0	41.2	34.8
30-34	73.8	35.9	31.1
35-39	74.4	35.5	32.0
40-44	76.9	34.7	31.6
45-49	75.7	31.4	28.6
50-54	77.4	27.9	24.5
55-59	77.3	25.2	22.8
60-64	78.0	22.6	19.9
65 or Older	65.7	11.7	10.3

*Low precision; no estimate reported.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30407 (2.30B)

Table H.23 Cigarette Use in Lifetime, Past Year, and Past Month among Persons Aged 12 or Older, by Demographic Characteristics: Percentages, 2002

Demographic Characteristic	TIME PERIOD		
	Lifetime	Past Year	Past Month
TOTAL	69.1	30.3	26.0
AGE			
12-17	33.3	20.3	13.0
18-25	71.2	49.0	40.8
26 or Older	73.7	28.5	25.2
GENDER			
Male	73.8	33.3	28.7
Female	64.8	27.6	23.4
HISPANIC ORIGIN AND RACE			
Not Hispanic or Latino	70.8	30.6	26.4
White	74.0	31.0	26.9
Black or African American	58.7	29.4	25.3
American Indian or Alaska Native	79.9	45.1	37.1
Native Hawaiian or Other Pacific Islander	*	*	*
Asian	46.4	21.6	17.7
Two or More Races	74.5	38.8	35.0
Hispanic or Latino	57.1	28.5	23.0

*Low precision; no estimate reported.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30407 (2.31B)

Table H.24 **Cigarette Use in Lifetime, Past Year, and Past Month among Persons Aged 12 to 17, by Demographic Characteristics: Percentages, 2002**

Demographic Characteristic	TIME PERIOD		
	Lifetime	Past Year	Past Month
TOTAL	33.3	20.3	13.0
GENDER			
Male	33.2	19.8	12.3
Female	33.4	21.0	13.6
HISPANIC ORIGIN AND RACE			
Not Hispanic or Latino	33.7	20.8	13.5
White	36.2	23.2	15.6
Black or African American	25.8	12.6	6.6
American Indian or Alaska Native	58.1	39.2	27.7
Native Hawaiian or Other Pacific Islander	*	*	*
Asian	19.7	10.0	3.8
Two or More Races	34.7	20.9	12.6
Hispanic or Latino	31.0	17.9	10.0
GENDER/RACE/HISPANIC ORIGIN			
Male - White	35.7	21.9	14.5
Female - White	36.6	24.6	16.9
Male - Black or African American	26.4	13.9	7.5
Female - Black or African American	25.1	11.3	5.8
Male - Hispanic or Latino	31.7	18.2	10.0
Female - Hispanic or Latino	30.3	17.7	10.1

*Low precision; no estimate reported.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30407 (2.32B)

Table H.25 **Cigarette Use in Lifetime, Past Year, and Past Month among Persons Aged 18 to 25, by Demographic Characteristics: Percentages, 2002**

	TIME PERIOD		
Demographic Characteristic	**Lifetime**	**Past Year**	**Past Month**
TOTAL	71.2	49.0	40.8
GENDER			
Male	73.7	52.7	44.4
Female	68.7	45.4	37.1
HISPANIC ORIGIN AND RACE			
Not Hispanic or Latino	73.0	51.2	43.0
White	77.2	55.6	47.0
Black or African American	57.2	33.8	27.7
American Indian or Alaska Native	82.3	59.8	47.5
Native Hawaiian or Other Pacific Islander	*	*	*
Asian	56.2	36.9	27.9
Two or More Races	80.6	58.8	51.2
Hispanic or Latino	63.2	38.9	30.5
EDUCATION			
< High School	72.1	54.9	48.2
High School Graduate	71.4	49.9	42.6
Some College	70.9	47.1	37.7
College Graduate	70.2	40.9	30.4
CURRENT EMPLOYMENT			
Full-Time	75.2	51.7	43.9
Part-Time	67.2	45.0	35.8
Unemployed	74.7	59.1	51.6
Other[1]	65.6	44.0	35.4

*Low precision; no estimate reported.

[1] Retired person, disabled person, homemaker, student, or other person not in the labor force.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30407 (2.33B)

Table H.26 Cigarette Use in Lifetime, Past Year, and Past Month among Persons Aged 26 or Older, by Demographic Characteristics: Percentages, 2002

Demographic Characteristic	TIME PERIOD		
	Lifetime	Past Year	Past Month
TOTAL	73.7	28.5	25.2
GENDER			
Male	79.8	31.8	28.3
Female	68.2	25.5	22.5
HISPANIC ORIGIN AND RACE			
Not Hispanic or Latino	75.3	28.6	25.5
White	78.0	28.3	25.2
Black or African American	65.3	31.7	28.3
American Indian or Alaska Native	*	43.2	36.6
Native Hawaiian or Other Pacific Islander	*	*	*
Asian	48.5	20.2	17.7
Two or More Races	82.2	38.1	36.3
Hispanic or Latino	60.6	27.7	23.5
EDUCATION			
< High School	66.6	35.2	32.2
High School Graduate	75.2	33.5	30.4
Some College	77.6	30.7	27.0
College Graduate	73.0	16.3	13.3
CURRENT EMPLOYMENT			
Full-Time	76.1	31.4	27.5
Part-Time	76.3	26.6	23.7
Unemployed	77.1	52.4	49.0
Other[1]	67.7	21.2	19.0

*Low precision; no estimate reported.

[1] Retired person, disabled person, homemaker, student, or other person not in the labor force.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30723 (4.58B)

Table H.27 Marijuana Use in Lifetime among Persons Aged 12 to 17 and Persons Aged 18 to 25 During the Years 1965 to 2002, by Gender: Percentages, Based on 2002 NSDUH

YEAR	AGED 12 TO 17			AGED 18 TO 25		
	Total	Male	Female	Total	Male	Female
1965	1.8	2.9	0.8	5.1	7.5	2.9
1966	1.8	3.0	0.7	6.1	9.1	3.4
1967	2.8	4.0	1.6	7.7	12.0	4.1
1968	4.9	6.0	3.8	10.6	16.2	6.0
1969	5.9	7.0	4.9	16.0	23.8	9.4
1970	7.4	9.2	5.6	22.0	30.6	14.1
1971	9.4	12.0	6.9	27.1	37.5	17.0
1972	11.0	14.2	7.9	30.8	41.2	20.8
1973	13.2	16.6	9.9	34.5	44.8	24.9
1974	14.8	18.5	11.4	39.3	48.9	30.0
1975	15.8	19.5	12.4	41.6	49.7	33.6
1976	17.9	21.5	14.7	44.9	52.1	37.7
1977	18.7	21.3	16.2	48.6	55.4	41.8
1978	18.0	19.8	16.4	51.0	57.5	44.6
1979	19.6	20.6	18.5	52.1	58.9	45.5
1980	19.4	21.4	17.4	53.0	58.6	47.7
1981	17.6	20.3	14.9	54.3	58.4	50.5
1982	16.9	19.3	14.5	54.4	58.5	50.4
1983	16.0	18.1	14.0	53.8	57.9	49.9
1984	15.6	17.5	13.7	53.2	57.1	49.5
1985	15.4	17.6	13.2	51.5	55.1	48.1
1986	15.2	18.5	11.9	50.4	54.4	46.7
1987	14.9	17.8	12.1	49.7	53.0	46.5
1988	13.2	16.0	10.5	48.8	52.9	44.7
1989	12.5	15.5	9.7	47.3	52.1	42.7
1990	11.9	14.1	9.8	46.6	51.3	42.0
1991	11.5	14.0	9.1	45.1	49.9	40.3
1992	11.8	14.1	9.7	44.5	49.4	39.6
1993	12.4	14.6	10.3	43.4	48.4	38.6
1994	13.9	15.6	12.1	43.5	48.4	38.6
1995	16.4	18.1	14.6	44.1	48.0	40.3
1996	17.9	19.5	16.3	44.3	48.3	40.4
1997	18.6	19.6	17.5	45.7	49.8	41.9
1998	19.9	21.4	18.3	47.0	51.0	43.2
1999	19.7	21.4	18.0	50.3	54.1	46.6
2000	20.4	22.2	18.6	51.8	54.9	48.7
2001	21.9	23.1	20.7	53.0	56.4	49.7
2002	20.6	21.5	19.7	53.8	56.2	51.3

*Low precision; no estimate reported.

NOTE: Percentages are calculated using a weighted ratio estimate where the numerator is the weighted sum of all lifetime users within each age group for a specific year and the denominator is the weighted sum of all persons within each age group for the same year. Lifetime drug use status and age group, for each specified year, were determined using the age, date of first use, and interview date for each respondent. See Section B.5 of Appendix B of the *Results from the 2002 National Survey on Drug Use and Health: National Findings*.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30723 (4.59B)

Table H.28 **Cocaine Use in Lifetime among Persons Aged 12 to 17 and Persons Aged 18 to 25 During the Years 1965 to 2002, by Gender: Percentages, Based on 2002 NSDUH**

YEAR	AGED 12 TO 17			AGED 18 TO 25		
	Total	Male	Female	Total	Male	Female
1965	0.1	0.2	0.1	0.2	0.3	0.1
1966	0.1	0.1	0.1	0.3	0.6	0.1
1967	0.1	0.1	0.1	0.3	0.5	0.1
1968	0.2	0.2	0.1	0.8	0.7	1.0
1969	0.3	0.6	0.0	1.2	1.4	1.0
1970	0.2	0.2	0.2	1.9	2.2	1.7
1971	0.5	0.6	0.4	2.5	3.3	1.7
1972	0.6	0.7	0.5	3.4	5.2	1.8
1973	0.8	0.9	0.7	4.0	6.0	2.2
1974	0.8	0.8	0.8	5.0	7.6	2.6
1975	1.0	1.1	0.9	6.7	9.1	4.4
1976	1.4	1.8	1.1	8.5	10.8	6.1
1977	1.1	1.5	0.8	10.0	12.7	7.3
1978	1.1	1.0	1.3	11.6	15.0	8.3
1979	1.5	1.2	1.8	13.0	16.9	9.3
1980	1.4	1.3	1.5	13.9	17.8	10.2
1981	1.9	2.3	1.6	15.9	19.6	12.3
1982	2.0	2.4	1.6	16.5	19.7	13.5
1983	1.8	2.0	1.6	17.4	20.7	14.2
1984	1.9	2.3	1.4	17.9	20.6	15.4
1985	1.9	2.4	1.5	17.4	19.5	15.3
1986	1.6	1.8	1.3	17.4	19.3	15.6
1987	2.2	2.4	1.9	16.8	18.0	15.6
1988	1.4	1.6	1.3	16.9	18.4	15.3
1989	1.1	1.3	0.9	16.0	18.1	13.8
1990	1.3	1.6	1.1	15.1	18.1	12.2
1991	1.3	1.4	1.2	13.6	16.4	10.8
1992	1.6	1.8	1.4	12.8	15.5	10.2
1993	1.2	1.4	1.0	11.7	14.7	8.7
1994	1.2	1.2	1.2	10.7	13.5	8.0
1995	1.4	1.5	1.4	10.3	12.2	8.5
1996	1.8	2.0	1.7	10.1	12.6	7.8
1997	2.0	2.0	2.0	10.4	12.7	8.2
1998	2.2	2.2	2.2	11.4	13.9	8.9
1999	2.0	1.9	2.0	12.3	15.0	9.7
2000	2.1	2.1	2.0	13.6	16.6	10.7
2001	2.3	2.2	2.5	14.9	18.2	11.5
2002	2.7	2.7	2.8	15.4	18.1	12.7

*Low precision; no estimate reported.

NOTE: Percentages are calculated using a weighted ratio estimate where the numerator is the weighted sum of all lifetime users within each age group for a specific year and the denominator is the weighted sum of all persons within each age group for the same year. Lifetime drug use status and age group, for each specified year, were determined using the age, date of first use, and interview date for each respondent. See Section B.5 of Appendix B of the *Results from the 2002 National Survey on Drug Use and Health: National Findings*.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30723 (4.62B)

Table H.29 Hallucinogen Use in Lifetime among Persons Aged 12 to 17 and Persons Aged 18 to 25 During the Years 1965 to 2002, by Gender: Percentages, Based on 2002 NSDUH

YEAR	AGED 12 TO 17			AGED 18 TO 25		
	Total	Male	Female	Total	Male	Female
1965	0.3	0.6	*	0.4	0.8	*
1966	0.2	0.4	*	0.9	1.2	0.6
1967	0.5	0.7	0.2	1.1	1.4	0.8
1968	1.4	2.0	0.8	1.4	1.8	1.1
1969	2.3	2.8	1.8	2.6	3.3	2.0
1970	2.1	2.6	1.6	5.2	6.4	4.0
1971	2.6	3.1	2.1	7.2	9.0	5.6
1972	3.3	4.0	2.6	9.5	11.8	7.2
1973	3.6	4.0	3.2	11.6	14.6	8.8
1974	3.8	4.3	3.2	13.3	16.6	10.1
1975	3.9	4.6	3.2	15.2	18.2	12.1
1976	3.4	4.2	2.7	16.6	19.9	13.2
1977	3.8	4.5	3.2	17.0	21.0	13.0
1978	2.9	3.2	2.6	18.1	22.7	13.6
1979	3.0	2.9	3.0	17.8	22.6	13.3
1980	3.3	4.1	2.5	17.4	22.1	12.9
1981	3.5	4.4	2.7	17.8	22.2	13.6
1982	2.8	3.9	1.7	18.0	21.6	14.5
1983	2.5	3.0	1.9	17.6	21.8	13.5
1984	2.6	3.3	2.0	17.1	20.9	13.6
1985	2.2	2.8	1.7	16.6	20.0	13.3
1986	2.5	2.8	2.2	15.6	18.7	12.7
1987	3.1	3.7	2.6	15.0	17.4	12.8
1988	2.4	3.1	1.7	15.4	18.2	12.6
1989	2.1	2.8	1.6	15.3	18.8	11.8
1990	2.5	3.0	1.9	14.5	18.1	11.1
1991	2.6	3.0	2.3	14.3	17.6	11.1
1992	2.8	3.1	2.4	14.3	18.1	10.6
1993	2.8	3.3	2.2	14.8	18.2	11.4
1994	3.1	3.4	2.8	15.3	18.9	11.9
1995	3.8	4.0	3.5	16.0	19.6	12.6
1996	4.2	4.4	4.0	15.9	19.5	12.4
1997	4.1	3.8	4.4	17.0	21.1	13.0
1998	4.6	4.7	4.4	18.2	22.0	14.5
1999	4.5	4.7	4.3	19.7	23.5	16.0
2000	5.1	5.4	4.7	21.8	25.4	18.2
2001	6.1	6.4	5.7	23.6	26.9	20.3
2002	5.7	5.8	5.6	24.2	26.7	21.8

*Low precision; no estimate reported.

NOTE: Percentages are calculated using a weighted ratio estimate where the numerator is the weighted sum of all lifetime users within each age group for a specific year and the denominator is the weighted sum of all persons within each age group for the same year. Lifetime drug use status and age group, for each specified year, were determined using the age, date of first use, and interview date for each respondent. See Section B.5 of Appendix B of the *Results from the 2002 National Survey on Drug Use and Health: National Findings*.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30723 (4.65B)

Table H.30 **Ecstasy Use in Lifetime among Persons Aged 12 to 17 and Persons Aged 18 to 25 During the Years 1965 to 2002, by Gender: Percentages, Based on 2002 NSDUH**

YEAR	AGED 12 TO 17			AGED 18 TO 25		
	Total	Male	Female	Total	Male	Female
1965	*	*	*	*	*	*
1966	*	*	*	*	*	*
1967	*	*	*	*	*	*
1968	*	*	*	*	*	*
1969	*	*	*	*	*	*
1970	*	*	*	*	*	*
1971	*	*	*	0.0	*	0.1
1972	0.0	0.0	*	0.1	0.2	0.1
1973	0.1	0.1	0.0	0.1	0.2	0.0
1974	0.1	0.2	0.0	0.1	0.2	0.0
1975	0.1	0.3	*	0.1	0.2	0.1
1976	0.0	0.1	*	0.2	0.4	0.0
1977	0.1	0.2	*	0.5	0.7	0.3
1978	0.1	0.1	*	0.4	0.7	0.1
1979	0.0	0.1	*	0.4	0.7	0.1
1980	0.1	0.2	*	0.3	0.5	0.2
1981	*	*	*	0.4	0.6	0.2
1982	0.0	0.0	*	0.4	0.5	0.3
1983	0.0	0.1	*	0.4	0.5	0.3
1984	0.0	0.1	*	0.4	0.5	0.4
1985	0.1	0.2	0.1	0.4	0.4	0.5
1986	0.0	*	0.1	0.9	1.0	0.7
1987	0.1	0.1	0.1	1.2	1.4	1.0
1988	0.2	0.2	0.3	1.5	1.7	1.2
1989	0.0	0.0	0.1	1.6	1.7	1.5
1990	0.1	0.1	*	1.9	2.1	1.7
1991	0.1	0.1	0.1	2.0	2.0	2.0
1992	0.2	0.1	0.2	2.4	2.6	2.2
1993	0.2	0.2	0.2	2.4	2.7	2.1
1994	0.2	0.2	0.2	2.4	2.8	2.1
1995	0.3	0.2	0.5	2.7	3.1	2.4
1996	0.5	0.4	0.6	2.8	3.2	2.4
1997	0.5	0.3	0.6	3.3	4.0	2.6
1998	0.9	0.8	0.9	4.7	5.6	3.9
1999	1.0	0.8	1.2	6.4	7.8	5.1
2000	1.9	1.9	1.8	9.7	11.2	8.3
2001	3.2	3.0	3.4	13.5	15.2	11.8
2002	3.3	3.0	3.7	15.1	16.2	13.9

*Low precision; no estimate reported.

NOTE: Percentages are calculated using a weighted ratio estimate where the numerator is the weighted sum of all lifetime users within each age group for a specific year and the denominator is the weighted sum of all persons within each age group for the same year. Lifetime drug use status and age group, for each specified year, were determined using the age, date of first use, and interview date for each respondent. See Section B.5 of Appendix B of the *Results from the 2002 National Survey on Drug Use and Health: National Findings*.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30723 (4.67B)

Table H.31 **Pain Reliever Use in Lifetime among Persons Aged 12 to 17 and Persons Aged 18 to 25 During the Years 1965 to 2002, by Gender: Percentages, Based on 2002 NSDUH**

YEAR	AGED 12 TO 17			AGED 18 TO 25		
	Total	Male	Female	Total	Male	Female
1965	0.4	0.4	0.4	1.7	3.2	0.5
1966	0.3	0.4	0.2	1.6	3.0	0.5
1967	0.6	0.5	0.6	1.4	2.2	0.6
1968	0.8	0.9	0.7	1.3	2.1	0.7
1969	1.1	1.3	0.9	1.6	2.3	1.0
1970	1.1	1.5	0.6	2.1	3.0	1.3
1971	1.2	1.6	0.9	3.1	4.3	1.9
1972	1.2	1.8	0.6	3.5	5.0	2.1
1973	1.5	1.8	1.2	3.9	5.4	2.6
1974	1.6	1.8	1.5	4.6	6.1	3.2
1975	1.5	1.8	1.3	5.7	7.2	4.1
1976	2.1	2.3	2.0	5.9	7.4	4.4
1977	2.1	2.3	1.9	6.9	9.2	4.7
1978	1.6	1.8	1.4	7.5	9.9	5.1
1979	1.8	1.9	1.8	7.6	10.1	5.1
1980	2.1	2.6	1.6	7.2	9.3	5.2
1981	1.8	2.5	1.2	7.5	9.4	5.7
1982	1.8	2.3	1.3	7.6	9.0	6.2
1983	1.7	2.1	1.4	7.6	9.5	5.8
1984	1.6	1.8	1.5	7.5	9.5	5.7
1985	1.9	2.2	1.7	7.5	9.5	5.6
1986	1.6	1.9	1.3	7.1	9.0	5.3
1987	1.6	1.8	1.3	7.4	9.0	5.9
1988	1.3	1.8	0.8	7.5	9.2	5.8
1989	1.2	1.6	0.8	7.4	9.3	5.4
1990	1.4	1.8	1.0	7.4	9.7	5.2
1991	1.6	2.1	1.2	6.9	8.4	5.4
1992	2.0	2.4	1.6	6.8	8.4	5.3
1993	2.1	2.5	1.7	7.2	9.0	5.4
1994	2.1	2.4	1.7	7.8	9.6	6.0
1995	2.7	3.3	2.1	8.7	10.7	6.8
1996	3.0	3.6	2.4	9.3	11.3	7.4
1997	3.6	4.1	3.2	10.7	11.9	9.5
1998	4.5	5.1	3.9	12.0	13.6	10.5
1999	5.4	6.2	4.6	14.1	16.0	12.3
2000	7.2	7.8	6.7	16.8	19.1	14.5
2001	9.6	9.7	9.5	19.4	21.8	17.0
2002	11.2	10.8	11.7	22.1	24.3	19.9

*Low precision; no estimate reported.

NOTE: Percentages are calculated using a weighted ratio estimate where the numerator is the weighted sum of all lifetime users within each age group for a specific year and the denominator is the weighted sum of all persons within each age group for the same year. Lifetime drug use status and age group, for each specified year, were determined using the age, date of first use, and interview date for each respondent. See Section B.5 of Appendix B of the *Results from the 2002 National Survey on Drug Use and Health: National Findings*.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30723 (4.72B)

Table H.32 **Alcohol Use in Lifetime among Persons Aged 12 to 17 and Persons Aged 18 to 25 During the Years 1965 to 2002, by Gender: Percentages, Based on 2002 NSDUH**

YEAR	AGED 12 TO 17			AGED 18 TO 25		
	Total	Male	Female	Total	Male	Female
1965	16.3	22.9	10.1	69.7	79.3	61.0
1966	17.9	25.3	10.9	70.5	79.1	62.9
1967	19.5	26.2	13.0	70.5	80.6	62.0
1968	21.2	27.8	14.5	71.8	81.6	63.6
1969	21.3	27.9	14.6	73.0	82.0	65.3
1970	20.8	27.4	14.2	75.3	83.8	67.5
1971	22.4	28.3	16.7	77.1	86.1	68.5
1972	24.6	30.9	18.4	77.7	86.3	69.4
1973	27.1	34.5	20.0	78.8	87.4	70.8
1974	29.0	36.0	22.5	79.5	87.1	72.2
1975	28.2	36.4	20.4	80.0	86.6	73.5
1976	28.6	35.9	21.9	80.4	87.0	73.8
1977	28.5	36.1	21.2	82.1	89.1	75.0
1978	29.2	36.2	22.7	82.5	89.3	75.8
1979	30.8	36.9	25.0	82.4	89.9	75.3
1980	31.8	38.5	25.3	82.7	88.6	77.1
1981	29.9	36.0	23.9	83.5	88.5	78.8
1982	30.3	35.6	25.1	83.9	87.9	80.0
1983	29.9	34.6	25.2	83.4	88.1	78.8
1984	29.7	34.5	25.0	82.9	88.0	78.2
1985	29.6	35.2	24.0	82.5	87.6	77.6
1986	30.6	36.7	24.5	82.2	87.2	77.6
1987	31.4	37.5	25.6	81.4	86.6	76.4
1988	30.7	36.5	25.0	81.7	86.4	77.1
1989	29.8	35.5	24.5	81.1	86.2	76.1
1990	28.9	34.1	24.0	80.9	85.7	76.3
1991	29.6	33.5	25.9	80.4	85.1	75.7
1992	27.9	31.9	24.1	81.3	85.5	77.1
1993	27.4	31.2	23.7	81.0	85.2	76.9
1994	28.1	30.9	25.2	81.8	86.4	77.2
1995	28.5	31.0	26.0	81.8	85.5	78.3
1996	29.1	31.7	26.4	81.2	84.6	78.1
1997	29.8	31.4	28.1	81.3	84.7	78.0
1998	31.2	33.4	29.0	82.0	85.2	78.9
1999	32.5	34.6	30.4	82.7	85.7	79.8
2000	37.1	38.9	35.2	83.4	85.5	81.4
2001	43.3	44.4	42.1	85.5	87.5	83.4
2002	43.4	43.4	43.4	86.7	88.0	85.4

*Low precision; no estimate reported.

NOTE: Percentages are calculated using a weighted ratio estimate where the numerator is the weighted sum of all lifetime users within each age group for a specific year and the denominator is the weighted sum of all persons within each age group for the same year. Lifetime drug use status and age group, for each specified year, were determined using the age, date of first use, and interview date for each respondent. See Section B.5 of Appendix B of the *Results from the 2002 National Survey on Drug Use and Health: National Findings*.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30723 (4.73B)

Table H.33 **Any Cigarette Use in Lifetime among Persons Aged 12 to 17 and Persons Aged 18 to 25 During the Years 1965 to 2002, by Gender: Percentages, Based on 2002 NSDUH**

YEAR	AGED 12 TO 17			AGED 18 TO 25		
	Total	Male	Female	Total	Male	Female
1965	29.6	37.9	21.7	70.3	78.9	62.6
1966	29.8	38.1	21.8	68.4	76.9	60.7
1967	31.3	40.5	22.3	68.4	78.1	60.3
1968	32.5	40.1	24.8	67.4	78.1	58.4
1969	31.3	39.6	22.9	68.1	78.0	59.8
1970	32.0	38.3	25.7	69.3	79.6	59.9
1971	33.1	39.4	27.0	69.6	79.3	60.3
1972	34.5	40.2	29.0	69.2	77.9	60.8
1973	35.9	40.2	31.6	69.2	77.9	61.0
1974	36.8	41.3	32.6	69.8	77.5	62.5
1975	36.1	39.7	32.7	70.1	76.1	64.2
1976	38.4	42.0	35.0	70.5	75.4	65.5
1977	37.6	41.4	33.9	70.3	75.6	65.0
1978	37.0	39.7	34.4	70.6	74.4	66.8
1979	36.5	39.2	33.9	70.8	74.8	67.1
1980	37.0	37.8	36.2	70.7	74.1	67.4
1981	34.9	35.9	34.0	71.5	74.0	69.1
1982	33.5	33.5	33.5	71.2	74.0	68.6
1983	33.5	33.9	33.1	70.8	73.4	68.4
1984	32.7	33.3	32.2	70.7	73.5	68.2
1985	31.9	33.4	30.4	70.1	72.3	68.0
1986	31.2	33.4	29.0	68.8	70.4	67.3
1987	30.3	32.8	27.9	68.0	70.2	65.8
1988	29.2	32.1	26.4	68.0	70.9	65.1
1989	29.5	32.4	26.8	67.8	71.0	64.6
1990	30.3	33.1	27.7	67.1	70.3	64.1
1991	29.9	32.1	27.8	65.8	68.6	63.1
1992	29.0	29.8	28.1	66.1	69.6	62.6
1993	29.8	30.8	28.9	66.0	69.9	62.1
1994	30.7	31.5	29.8	66.2	70.0	62.5
1995	32.1	33.5	30.7	66.2	70.0	62.5
1996	33.8	35.0	32.6	66.3	69.5	63.2
1997	35.6	36.6	34.7	67.1	70.9	63.5
1998	36.3	37.3	35.3	68.3	72.4	64.3
1999	37.8	38.6	37.0	70.4	73.8	67.2
2000	37.1	38.0	36.1	71.0	73.4	68.6
2001	37.3	37.5	37.2	71.3	74.3	68.4
2002	33.3	33.2	33.4	71.2	73.7	68.7

*Low precision; no estimate reported.

NOTE: Percentages are calculated using a weighted ratio estimate where the numerator is the weighted sum of all lifetime users within each age group for a specific year and the denominator is the weighted sum of all persons within each age group for the same year. Lifetime drug use status and age group, for each specified year, were determined using the age, date of first use, and interview date for each respondent. See Section B.5 of Appendix B of the *Results from the 2002 National Survey on Drug Use and Health: National Findings*.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

Table H.34 Daily Cigarette Use in Lifetime among Persons Aged 12 to 17 and Persons Aged 18 to 25 During the Years 1965 to 2002, by Gender: Percentages, Based on 2002 NSDUH

YEAR	AGED 12 TO 17			AGED 18 TO 25		
	Total	Male	Female	Total	Male	Female
1965	7.8	10.0	5.7	42.8	53.1	33.6
1966	8.3	11.7	5.0	41.0	50.0	32.9
1967	8.6	11.8	5.5	41.4	51.4	33.0
1968	8.3	10.8	5.8	40.5	52.3	30.6
1969	8.7	11.9	5.5	39.2	49.5	30.5
1970	8.0	9.1	7.0	39.3	49.9	29.5
1971	8.7	10.1	7.4	38.8	50.2	27.8
1972	9.3	10.8	7.8	38.9	48.6	29.4
1973	10.0	11.8	8.2	38.6	47.8	30.0
1974	10.9	12.8	9.2	37.7	45.9	29.7
1975	10.3	11.6	9.2	37.7	44.4	31.0
1976	11.1	11.8	10.5	38.0	43.9	32.0
1977	11.3	11.1	11.6	37.8	43.9	31.7
1978	10.3	10.0	10.6	38.4	42.9	33.9
1979	9.6	9.8	9.5	38.9	42.7	35.3
1980	9.8	10.5	9.2	38.5	41.6	35.6
1981	9.3	9.6	9.1	38.9	40.6	37.4
1982	9.3	9.1	9.5	38.4	39.2	37.6
1983	9.2	8.5	9.9	37.6	38.6	36.7
1984	8.6	8.1	9.1	37.2	38.1	36.4
1985	8.0	7.9	8.2	36.2	37.0	35.5
1986	8.4	8.8	8.1	34.9	35.0	34.9
1987	8.7	9.1	8.3	32.9	32.8	32.9
1988	8.0	8.8	7.2	32.7	33.4	32.1
1989	7.3	8.6	6.0	32.2	33.1	31.4
1990	7.1	7.5	6.8	31.9	33.3	30.4
1991	8.1	8.0	8.3	30.9	32.5	29.3
1992	8.2	8.5	7.9	31.5	33.1	29.8
1993	8.3	9.0	7.6	31.3	33.2	29.5
1994	8.2	8.6	7.9	31.6	33.9	29.5
1995	9.0	9.2	8.9	32.0	34.4	29.6
1996	9.4	9.2	9.7	32.0	33.7	30.4
1997	9.8	9.4	10.3	32.9	34.6	31.3
1998	10.7	10.4	11.0	34.4	35.7	33.2
1999	10.5	10.6	10.4	36.1	37.0	35.2
2000	10.7	10.7	10.7	36.8	37.6	35.9
2001	10.6	10.3	10.9	37.7	38.8	36.5
2002	8.2	8.0	8.5	37.1	38.1	36.1

*Low precision; no estimate reported.

NOTE: Percentages are calculated using a weighted ratio estimate where the numerator is the weighted sum of all lifetime users within each age group for a specific year and the denominator is the weighted sum of all persons within each age group for the same year. Lifetime drug use status and age group, for each specified year, were determined using the age, date of first use, and interview date for each respondent. See Section B.5 of Appendix B of the *Results from the 2002 National Survey on Drug Use and Health: National Findings.*

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

Table H.35 **Numbers (in Thousands) of Persons Who First Used Marijuana During the Years 1965 to 2001, Their Mean Age at First Use, and Annual Age-Specific Rates of First Use (Per 1,000 Person-Years of Exposure): Based on 2002 NSDUH**

	NUMBER OF INITIATES (1,000s)			MEAN	AGE-SPECIFIC RATES[1]	
YEAR	**All Ages**	**Under 18**	**18 or Older**	**AGE**	**12-17**	**18-25**
1965	797	368	429	18.3	16.2	20.0
1966	698	208	490	20.5	8.5	19.0
1967	1,345	570	775	18.7	24.7	30.0
1968	1,988	747	1,241	19.2	30.9	46.2
1969	2,611	898	1,713	19.5	37.0	65.8
1970	2,906	1,214	1,692	18.6	48.8	71.5
1971	3,001	1,389	1,611	18.0	55.9	69.0
1972	2,863	1,521	1,342	18.7	62.6	49.4
1973	3,673	1,799	1,875	19.0	72.5	76.0
1974	3,587	1,952	1,636	18.3	81.3	67.1
1975	3,476	1,849	1,627	18.2	76.4	68.8
1976	3,621	2,269	1,352	18.2	100.1	55.0
1977	3,437	1,920	1,517	18.7	84.8	62.3
1978	3,488	2,117	1,371	18.2	95.3	61.9
1979	2,971	1,760	1,211	19.1	79.5	49.8
1980	2,633	1,502	1,132	19.2	66.9	48.0
1981	2,730	1,529	1,201	18.4	70.0	57.5
1982	2,443	1,311	1,132	20.3	60.4	41.8
1983	2,250	1,404	846	18.1	63.4	36.8
1984	2,282	1,515	767	17.7	70.8	35.9
1985	2,238	1,418	820	17.4	66.5	41.8
1986	2,079	1,193	886	18.0	58.3	42.7
1987	1,969	1,177	791	18.1	55.7	38.8
1988	1,588	987	601	17.3	48.0	31.8
1989	1,829	1,111	718	17.7	54.5	37.2
1990	1,556	885	671	17.5	42.6	33.7
1991	1,931	1,124	807	18.2	55.0	37.8
1992	2,055	1,170	885	17.4	56.9	46.7
1993	2,155	1,383	772	16.4	66.0	40.8
1994	2,482	1,574	908	16.9	75.9	47.2
1995	2,812	1,777	1,034	16.8	85.3	56.7
1996	2,489	1,587	901	17.0	75.3	47.5
1997	2,807	1,803	1,005	17.2	87.4	53.7
1998	2,613	1,778	836	17.1	86.4	47.5
1999	2,903	1,837	1,065	17.6	90.1	57.4
2000	2,976	2,078	898	16.6	102.4	55.8
2001	2,604	1,741	863	17.1	86.6	49.6

*Low precision; no estimate reported.
-- Not available.

[1] The numerator of each rate is the number of persons in the age group who first used the drug in the year, while the denominator is the person-time exposure measured in thousands of years.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30416 (4.2A)

Table H.36 **Numbers (in Thousands) of Persons Who First Used Cocaine During the Years 1965 to 2001, Their Mean Age at First Use, and Annual Age-Specific Rates of First Use (Per 1,000 Person-Years of Exposure): Based on 2002 NSDUH**

YEAR	NUMBER OF INITIATES (1,000s)			MEAN AGE	AGE-SPECIFIC RATES[1]	
	All Ages	Under 18	18 or Older		12-17	18-25
1965	98	*	*	*	*	*
1966	*	*	*	*	*	*
1967	*	*	*	*	*	*
1968	175	*	94	18.6	*	3.7
1969	146	*	121	21.6	*	3.4
1970	258	95	163	18.2	3.7	6.1
1971	480	87	393	21.1	3.4	11.7
1972	375	103	272	19.7	3.9	7.3
1973	578	168	410	20.8	6.3	12.2
1974	912	212	699	22.6	7.9	15.8
1975	1,014	248	766	20.5	9.2	21.4
1976	1,125	200	926	21.5	7.5	26.9
1977	1,164	278	887	21.0	10.4	24.5
1978	1,257	177	1,079	21.5	6.7	28.3
1979	1,252	283	969	20.5	10.9	27.6
1980	1,725	319	1,406	22.3	12.6	32.9
1981	1,660	289	1,371	22.2	11.7	33.0
1982	1,457	333	1,125	22.1	13.6	25.9
1983	1,442	227	1,215	20.9	9.4	37.0
1984	1,396	254	1,141	22.5	10.7	28.4
1985	1,326	263	1,063	22.1	11.1	24.7
1986	1,247	204	1,043	23.9	8.7	23.4
1987	1,087	304	784	22.1	13.0	20.6
1988	1,167	178	989	23.1	7.7	24.3
1989	1,048	160	888	23.4	7.0	23.1
1990	950	169	780	23.8	7.8	17.0
1991	662	173	489	22.0	7.9	11.8
1992	906	161	745	25.3	7.2	13.6
1993	635	126	509	22.3	5.8	13.0
1994	680	174	506	22.3	7.2	12.3
1995	813	223	590	21.5	9.5	15.9
1996	853	303	549	21.1	12.8	14.9
1997	948	273	675	21.1	11.4	19.1
1998	961	319	643	20.7	13.3	18.8
1999	1,083	268	815	21.6	11.1	23.1
2000	1,139	374	765	20.4	15.2	24.0
2001	1,160	353	807	20.8	14.5	22.4

*Low precision; no estimate reported.

-- Not available.

[1] The numerator of each rate is the number of persons in the age group who first used the drug in the year, while the denominator is the person-time exposure measured in thousands of years.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30416 (4.5A)

Table H.37 Numbers (in Thousands) of Persons Who First Used Hallucinogens During the Years 1965 to 2001, Their Mean Age at First Use, and Annual Age-Specific Rates of First Use (Per 1,000 Person-Years of Exposure): Based on 2002 NSDUH

YEAR	NUMBER OF INITIATES (1,000s)			MEAN AGE	AGE-SPECIFIC RATES[1]	
	All Ages	Under 18	18 or Older		12-17	18-25
1965	*	*	*	*	*	*
1966	168	46	122	22.9	*	3.6
1967	268	125	142	18.6	5.4	4.5
1968	446	262	183	17.9	11.0	6.6
1969	739	324	414	18.6	12.9	14.4
1970	956	363	593	18.5	14.6	22.1
1971	1,044	471	572	18.4	17.7	19.3
1972	1,035	515	521	17.8	19.5	17.8
1973	947	453	493	18.2	17.0	18.2
1974	1,073	546	527	18.1	20.3	17.9
1975	999	449	551	18.5	17.2	17.8
1976	1,032	568	464	18.0	21.7	15.8
1977	856	393	463	18.8	15.0	15.8
1978	983	406	577	18.2	15.4	20.5
1979	989	531	458	18.1	20.8	14.7
1980	957	380	576	19.0	15.1	17.8
1981	1,039	359	680	19.5	14.8	20.2
1982	964	355	609	21.4	14.4	14.9
1983	801	395	406	18.6	16.4	12.4
1984	692	272	420	20.2	11.5	11.8
1985	809	298	511	19.1	12.5	15.7
1986	795	382	414	19.1	16.4	11.6
1987	828	372	456	19.6	16.1	13.4
1988	893	332	561	19.5	14.8	17.2
1989	713	302	411	19.0	13.8	12.4
1990	712	309	402	19.3	14.2	11.5
1991	784	324	460	18.8	15.0	15.0
1992	706	316	390	19.1	14.2	11.5
1993	891	378	513	19.3	17.1	15.1
1994	961	482	479	18.1	21.5	17.1
1995	1,036	510	526	18.3	22.3	18.5
1996	1,057	492	565	19.8	21.1	19.1
1997	1,175	554	621	19.1	23.5	22.2
1998	1,242	571	671	18.9	23.8	24.0
1999	1,564	701	862	18.7	29.5	32.3
2000	1,686	801	885	18.7	33.4	32.2
2001	1,592	757	835	19.0	31.6	30.1

*Low precision; no estimate reported.

-- Not available.

[1] The numerator of each rate is the number of persons in the age group who first used the drug in the year, while the denominator is the person-time exposure measured in thousands of years.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30416 (4.8A)

Table H.38 **Numbers (in Thousands) of Persons Who First Used Ecstasy During the Years 1965 to 2001, Their Mean Age at First Use, and Annual Age-Specific Rates of First Use (Per 1,000 Person-Years of Exposure): Based on 2002 NSDUH**

YEAR	NUMBER OF INITIATES (1,000s)			MEAN AGE	AGE-SPECIFIC RATES[1]	
	All Ages	Under 18	18 or Older		12-17	18-25
1965	*	*	*	*	*	*
1966	*	*	*	*	*	*
1967	*	*	*	*	*	*
1968	*	*	*	*	*	*
1969	*	*	*	*	*	*
1970	*	*	*	*	*	*
1971	*	*	*	*	*	*
1972	*	*	*	*	*	*
1973	*	*	*	*	*	*
1974	*	*	*	*	*	*
1975	*	*	*	*	*	*
1976	91	*	*	*	*	*
1977	*	*	*	*	*	*
1978	*	*	*	*	*	*
1979	47	*	*	*	*	*
1980	*	*	*	*	*	*
1981	*	*	*	*	*	*
1982	*	*	*	*	*	*
1983	98	*	*	*	*	*
1984	49	*	49	23.4	*	1.2
1985	144	*	120	21.0	*	3.1
1986	133	*	108	21.8	*	2.8
1987	223	*	191	23.3	*	4.7
1988	208	55	154	21.1	2.4	3.8
1989	153	*	114	19.8	*	3.2
1990	204	*	174	23.9	*	3.0
1991	194	*	178	22.4	*	4.2
1992	175	29	147	20.6	*	4.5
1993	168	18	150	24.6	0.8	3.0
1994	238	41	197	22.0	1.8	5.0
1995	361	86	276	21.9	3.6	7.3
1996	360	94	266	26.6	3.9	5.8
1997	567	118	449	22.6	4.9	11.8
1998	789	174	615	21.3	7.0	17.1
1999	1,539	340	1,199	21.8	13.9	33.8
2000	1,942	540	1,402	21.1	21.9	40.8
2001	1,776	590	1,186	21.1	24.2	33.3

*Low precision; no estimate reported.

-- Not available.

[1] The numerator of each rate is the number of persons in the age group who first used the drug in the year, while the denominator is the person-time exposure measured in thousands of years.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30416 (4.10A)

Table H.39 **Numbers (in Thousands) of Persons Who First Used Pain Relievers During the Years 1965 to 2001, Their Mean Age at First Use, and Annual Age-Specific Rates of First Use (Per 1,000 Person-Years of Exposure): Based on 2002 NSDUH**

YEAR	NUMBER OF INITIATES (1,000s)			MEAN AGE	AGE-SPECIFIC RATES[1]	
	All Ages	Under 18	18 or Older		12-17	18-25
1965	*	*	*	*	*	*
1966	73	*	*	*	*	*
1967	102	*	53	*	*	2.2
1968	391	133	258	19.7	*	10.2
1969	248	155	93	18.5	6.2	2.4
1970	262	128	135	16.2	3.8	4.5
1971	441	248	193	18.3	8.6	5.1
1972	327	130	197	20.3	4.7	4.9
1973	506	202	304	18.7	6.6	9.4
1974	505	182	323	20.1	4.9	7.6
1975	584	202	382	21.5	7.2	8.7
1976	546	232	314	19.3	8.8	8.6
1977	600	134	466	21.3	4.8	11.5
1978	593	233	360	19.0	8.7	9.5
1979	531	253	278	20.2	9.6	6.3
1980	546	177	369	22.7	6.7	5.8
1981	469	117	352	21.4	4.5	8.9
1982	445	180	265	21.1	6.2	5.1
1983	585	110	474	21.8	4.4	10.7
1984	525	111	414	24.3	4.4	7.7
1985	586	133	453	23.1	5.2	8.6
1986	664	129	535	23.2	5.1	11.5
1987	555	156	400	24.5	5.4	6.9
1988	498	130	369	22.3	5.1	7.7
1989	684	180	504	24.0	7.5	9.3
1990	628	118	510	23.9	4.5	10.9
1991	647	192	455	22.6	8.1	10.4
1992	851	213	638	24.4	7.5	10.1
1993	713	200	513	21.2	7.7	12.5
1994	1,020	301	718	23.3	11.7	12.9
1995	973	270	702	22.4	9.8	16.1
1996	1,114	437	677	20.8	16.4	18.7
1997	1,434	513	921	21.8	19.1	22.0
1998	1,738	649	1,089	23.6	23.5	23.1
1999	2,010	754	1,256	22.1	29.4	32.5
2000	2,656	1,028	1,628	23.6	42.5	37.2
2001	2,389	1,124	1,264	20.8	47.9	32.0

*Low precision; no estimate reported.

-- Not available.

[1] The numerator of each rate is the number of persons in the age group who first used the drug in the year, while the denominator is the person-time exposure measured in thousands of years.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30724 (4.15A)

Table H.40 Numbers (in Thousands) of Persons Who First Used Alcohol During the Years 1965 to 2001, Their Mean Age at First Use, and Annual Age-Specific Rates of First Use (Per 1,000 Person-Years of Exposure): Based on 2002 NSDUH

YEAR	NUMBER OF INITIATES (1,000s) All Ages	Under 18	18 or Older	MEAN AGE	AGE-SPECIFIC RATES[1] 12-17	18-25
1965	3,228	1,864	1,364	17.3	92.5	196.9
1966	3,226	1,880	1,347	16.9	89.6	194.7
1967	3,781	2,054	1,727	17.0	98.8	230.3
1968	3,979	2,353	1,625	17.1	111.2	206.4
1969	4,013	2,169	1,843	17.4	99.1	239.3
1970	4,257	2,463	1,794	17.1	109.5	254.6
1971	4,146	2,724	1,422	16.5	120.2	204.7
1972	4,537	3,033	1,505	16.5	138.8	216.5
1973	4,731	2,993	1,738	16.6	141.0	254.4
1974	4,336	2,891	1,444	16.9	140.2	207.9
1975	4,215	2,630	1,584	17.2	124.6	212.6
1976	4,241	2,866	1,376	16.9	136.6	182.5
1977	4,675	3,169	1,507	16.6	151.6	220.1
1978	4,356	3,057	1,299	16.3	153.4	200.0
1979	4,077	2,707	1,371	16.3	138.7	220.5
1980	4,015	2,658	1,357	16.9	136.9	195.4
1981	3,997	2,672	1,325	16.6	136.8	198.6
1982	3,959	2,684	1,276	16.6	139.7	197.1
1983	3,667	2,244	1,423	16.6	118.3	227.1
1984	3,657	2,636	1,022	16.1	138.9	160.0
1985	3,861	2,484	1,377	17.3	136.1	203.5
1986	3,687	2,749	937	15.9	155.2	145.9
1987	3,304	2,233	1,071	16.5	127.4	159.5
1988	3,319	2,245	1,073	16.4	130.8	156.6
1989	3,445	2,346	1,099	16.5	138.3	163.2
1990	3,256	2,172	1,085	16.9	126.6	153.4
1991	3,520	2,107	1,414	16.9	123.3	209.8
1992	3,502	2,156	1,345	17.4	122.6	189.9
1993	3,435	2,276	1,159	16.4	128.6	180.0
1994	3,714	2,544	1,170	16.1	136.9	196.8
1995	3,445	2,302	1,143	16.2	123.7	195.7
1996	3,733	2,529	1,204	16.4	133.4	197.9
1997	3,995	2,777	1,218	16.4	147.1	207.6
1998	4,321	2,890	1,431	16.8	153.9	232.6
1999	4,520	3,241	1,280	16.0	175.6	227.1
2000	5,632	4,128	1,504	16.2	249.4	286.7
2001	--	--	1,200	--	222.3	259.3

*Low precision; no estimate reported.

-- Not available.

[1] The numerator of each rate is the number of persons in the age group who first used the drug in the year, while the denominator is the person-time exposure measured in thousands of years.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

Table H.41 Numbers (in Thousands) of Persons Who First Used Any Cigarettes During the Years 1965 to 2001, Their Mean Age at First Use, and Annual Age-Specific Rates of First Use (Per 1,000 Person-Years of Exposure): Based on 2002 NSDUH

YEAR	NUMBER OF INITIATES (1,000s) All Ages	Under 18	18 or Older	MEAN AGE	AGE-SPECIFIC RATES[1] 12-17	18-25
1965	2,895	2,241	654	14.9	113.5	99.9
1966	2,821	2,008	814	15.6	108.3	100.9
1967	3,346	2,574	772	15.3	134.1	94.0
1968	3,296	2,374	922	15.5	119.8	104.6
1969	3,222	2,557	665	15.1	131.3	78.8
1970	3,555	2,807	748	14.9	135.4	85.0
1971	3,343	2,559	784	15.3	122.5	85.3
1972	3,649	2,962	687	14.7	138.7	75.8
1973	3,437	2,697	739	14.9	131.7	76.8
1974	3,666	2,797	868	15.1	137.9	88.0
1975	3,604	2,871	734	15.1	144.5	68.0
1976	3,700	2,855	845	15.3	146.5	76.7
1977	3,089	2,456	634	15.1	127.3	58.4
1978	3,527	2,823	704	15.3	147.2	61.3
1979	3,158	2,487	671	15.0	122.3	60.1
1980	3,020	2,200	820	15.7	115.4	68.9
1981	2,931	2,095	836	15.6	110.4	77.1
1982	2,730	2,121	609	15.7	114.0	51.3
1983	2,929	2,193	736	16.1	116.7	61.3
1984	2,570	2,013	557	15.3	106.4	50.0
1985	2,882	2,264	618	15.3	124.0	56.9
1986	2,557	2,018	539	15.3	101.7	46.4
1987	2,603	1,909	693	15.5	100.7	59.6
1988	2,816	1,952	864	15.8	103.6	74.6
1989	2,900	2,024	876	16.3	111.4	72.8
1990	2,627	1,925	702	16.2	108.6	51.8
1991	2,638	1,899	739	15.4	101.9	62.6
1992	2,882	2,036	847	15.9	112.0	66.0
1993	3,178	2,339	839	15.3	126.8	72.8
1994	3,158	2,370	788	15.3	124.4	66.6
1995	3,362	2,457	905	15.6	130.2	79.0
1996	3,552	2,766	787	15.2	145.8	71.1
1997	3,500	2,623	877	15.4	140.3	81.8
1998	3,389	2,659	730	15.3	143.8	71.2
1999	3,287	2,482	806	15.9	142.3	80.8
2000	2,963	2,215	748	16.0	130.8	74.1
2001	--	--	626	--	101.2	60.5

*Low precision; no estimate reported.

-- Not available.

[1] The numerator of each rate is the number of persons in the age group who first used the drug in the year, while the denominator is the person-time exposure measured in thousands of years.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30416 (4.17A)

Table H.42 **Numbers (in Thousands) of Persons Who Began Daily Cigarette Use During the Years 1965 to 2001, Their Mean Age at First Use, and Annual Age-Specific Rates of First Use (Per 1,000 Person-Years of Exposure): Based on 2002 NSDUH**

YEAR	NUMBER OF INITIATES (1,000s)			MEAN AGE	AGE-SPECIFIC RATES[1]	
	All Ages	Under 18	18 or Older		12-17	18-25
1965	1,478	692	786	18.4	32.8	56.3
1966	1,828	948	880	17.5	43.1	62.6
1967	1,793	985	808	17.4	43.5	55.1
1968	1,751	807	943	18.4	34.3	56.2
1969	2,041	1,193	848	17.1	48.4	52.0
1970	1,751	895	856	17.6	37.3	47.6
1971	1,816	916	900	17.8	37.8	48.6
1972	2,240	1,154	1,086	17.4	47.7	58.3
1973	2,011	1,159	852	17.2	45.7	40.3
1974	2,055	1,209	846	17.3	47.6	41.0
1975	2,350	1,340	1,010	17.4	54.2	46.4
1976	2,106	1,117	989	18.2	45.0	40.4
1977	2,067	1,147	920	18.0	46.7	38.3
1978	2,140	1,116	1,024	18.5	45.9	40.9
1979	1,905	1,021	885	18.0	42.5	34.9
1980	2,012	1,009	1,003	17.9	41.7	40.2
1981	1,929	960	968	18.4	40.6	36.9
1982	1,804	1,063	741	17.8	44.9	29.0
1983	1,686	801	885	18.7	34.6	32.6
1984	1,474	777	697	18.0	34.3	27.7
1985	1,581	968	613	17.3	42.3	25.3
1986	1,492	845	647	18.2	37.4	24.4
1987	1,350	709	641	17.6	30.9	25.0
1988	1,461	677	784	18.6	30.8	29.8
1989	1,318	608	710	18.5	26.9	28.0
1990	1,738	834	904	19.3	40.0	31.1
1991	1,681	720	962	19.4	34.7	33.7
1992	1,650	812	839	18.6	39.2	32.4
1993	1,400	754	646	17.8	34.7	25.9
1994	1,738	920	819	17.7	41.7	35.1
1995	1,706	953	754	17.9	42.9	31.2
1996	2,054	1,092	962	19.0	47.4	34.4
1997	1,967	1,106	862	17.8	48.2	37.9
1998	2,071	1,130	941	18.1	49.7	41.4
1999	1,887	1,104	783	18.1	49.2	35.1
2000	1,893	1,107	786	17.9	48.4	34.6
2001	1,434	757	678	19.4	33.5	26.7

*Low precision; no estimate reported.

-- Not available.

[1] The numerator of each rate is the number of persons in the age group who first used the drug in the year, while the denominator is the person-time exposure measured in thousands of years.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30731 (5.25A)

Table H.43 Substance Dependence or Abuse for Specific Substances in the Past Year, by Age Group: Numbers in Thousands, 2002

Past Year Dependence or Abuse	Total	AGE GROUP (Years)		
		12-17	18-25	26 or Older
Any Illicit Drug[1]	7,116	1,376	2,548	3,192
Marijuana and Hashish	4,294	1,055	1,860	1,378
Cocaine	1,488	105	377	1,006
Heroin	214	13	47	153
Hallucinogens	426	138	242	46
Inhalants	180	101	29	50
Nonmedical Use of Any Psychotherapeutic[2]	2,018	333	587	1,098
Pain Relievers	1,509	237	419	853
Tranquilizers	509	87	144	278
Stimulants	436	98	137	202
Sedatives	154	28	26	100
Alcohol	18,100	1,453	5,477	11,169
Any Illicit Drug or Alcohol[1]	22,006	2,209	6,733	13,064
Any Illicit Drug and Alcohol[1]	3,210	620	1,292	1,298

*Low precision; no estimate reported.

NOTE: Dependence or abuse is based on definitions found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV).

[1] Any Illicit Drug includes marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically.

[2] Nonmedical use of any prescription-type pain reliever, tranquilizer, stimulant, or sedative; does not include over-the-counter drugs.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30731 (5.25B)

Table H.44 Substance Dependence or Abuse for Specific Substances in the Past Year, by Age Group: Percentages, 2002

Past Year Dependence or Abuse	Total	AGE GROUP (Years)		
		12-17	18-25	26 or Older
Any Illicit Drug[1]	3.0	5.6	8.2	1.8
Marijuana and Hashish	1.8	4.3	6.0	0.8
Cocaine	0.6	0.4	1.2	0.6
Heroin	0.1	0.1	0.2	0.1
Hallucinogens	0.2	0.6	0.8	0.0
Inhalants	0.1	0.4	0.1	0.0
Nonmedical Use of Any Psychotherapeutic[2]	0.9	1.3	1.9	0.6
Pain Relievers	0.6	1.0	1.4	0.5
Tranquilizers	0.2	0.4	0.5	0.2
Stimulants	0.2	0.4	0.4	0.1
Sedatives	0.1	0.1	0.1	0.1
Alcohol	7.7	5.9	17.7	6.2
Any Illicit Drug or Alcohol[1]	9.4	8.9	21.7	7.3
Any Illicit Drug and Alcohol[1]	1.4	2.5	4.2	0.7

*Low precision; no estimate reported.

NOTE: Dependence or abuse is based on definitions found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV).

[1] Any Illicit Drug includes marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically.

[2] Nonmedical use of any prescription-type pain reliever, tranquilizer, stimulant, or sedative; does not include over-the-counter drugs.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30722 (5.27B)

Table H.45 Substance Dependence or Abuse in the Past Year among Persons Aged 12 or Older, by Demographic Characteristics: Percentages, 2002

Demographic Characteristic	TYPE OF PAST YEAR DEPENDENCE OR ABUSE		
	Any Illicit Drug	Alcohol	Any Illicit Drug or Alcohol
TOTAL	3.0	7.7	9.4
AGE			
12-17	5.6	5.9	8.9
18-25	8.2	17.7	21.7
26 or Older	1.8	6.2	7.3
GENDER			
Male	4.0	10.8	12.8
Female	2.1	4.8	6.1
HISPANIC ORIGIN AND RACE			
Not Hispanic or Latino	2.9	7.6	9.2
White	2.8	7.8	9.3
Black or African American	4.2	7.1	9.5
American Indian or Alaska Native	4.3	12.1	14.1
Native Hawaiian or Other Pacific Islander	3.5	7.1	8.9
Asian	1.1	3.6	4.2
Two or More Races	4.3	9.8	13.0
Hispanic or Latino	3.7	8.4	10.4

*Low precision; no estimate reported.

NOTE: Any Illicit Drug includes marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically.

NOTE: Dependence or abuse is based on definitions found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV).

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30731 (5.39A)

Table H.46 **Received Substance Use Treatment in the Past Year among Persons Aged 12 or Older, by Demographic Characteristics: Numbers in Thousands, 2002**

Demographic Characteristic	SUBSTANCE FOR WHICH TREATMENT WAS RECEIVED IN PAST YEAR			
	Any Illicit Drug	Alcohol	Both Any Illicit Drug and Alcohol	Any Illicit Drug or Alcohol[1]
TOTAL	2,013	2,405	1,319	3,483
AGE				
12-17	255	227	172	369
18-25	418	453	256	686
26 or Older	1,341	1,725	891	2,428
GENDER				
Male	1,262	1,743	951	2,334
Female	751	661	367	1,149
HISPANIC ORIGIN AND RACE				
Not Hispanic or Latino	1,757	2,169	1,161	3,114
White	1,244	1,740	813	2,371
Black or African American	421	346	288	595
American Indian or Alaska Native	38	42	30	71
Native Hawaiian or Other Pacific Islander	3	2	2	4
Asian	14	15	9	20
Two or More Races	37	24	18	54
Hispanic or Latino	256	236	158	369

*Low precision; no estimate reported.

NOTE: Received Substance Use Treatment refers to treatment received in order to reduce or stop drug or alcohol use, or for medical problems associated with drug or alcohol use. It includes treatment received at any location, such as a hospital, a rehabilitation facility (inpatient or outpatient), mental health center, emergency room, private doctor's office, self-help group, or prison/jail.

NOTE: Any Illicit Drug includes marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically.

[1] Estimates include persons who received treatment specifically for any illicit drug or alcohol, as well as persons who received treatment but did not specify for what substance(s).

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30731 (5.39B)

Table H.47 **Received Substance Use Treatment in the Past Year among Persons Aged 12 or Older, by Demographic Characteristics: Percentages, 2002**

Demographic Characteristic	SUBSTANCE FOR WHICH TREATMENT WAS RECEIVED IN PAST YEAR			
	Any Illicit Drug	Alcohol	Both Any Illicit Drug and Alcohol	Any Illicit Drug or Alcohol[1]
TOTAL	0.9	1.0	0.6	1.5
AGE				
12-17	1.0	0.9	0.7	1.5
18-25	1.3	1.5	0.8	2.2
26 or Older	0.7	1.0	0.5	1.4
GENDER				
Male	1.1	1.5	0.8	2.1
Female	0.6	0.5	0.3	0.9
HISPANIC ORIGIN AND RACE				
Not Hispanic or Latino	0.9	1.1	0.6	1.5
White	0.8	1.1	0.5	1.4
Black or African American	1.6	1.3	1.1	2.2
American Indian or Alaska Native	2.6	2.8	2.0	4.8
Native Hawaiian or Other Pacific Islander	0.4	0.3	0.3	0.5
Asian	0.2	0.2	0.1	0.2
Two or More Races	1.5	0.9	0.7	2.1
Hispanic or Latino	0.9	0.8	0.5	1.3

*Low precision; no estimate reported.

NOTE: Received Substance Use Treatment refers to treatment received in order to reduce or stop drug or alcohol use, or for medical problems associated with drug or alcohol use. It includes treatment received at any location, such as a hospital, a rehabilitation facility (inpatient or outpatient), mental health center, emergency room, private doctor's office, self-help group, or prison/jail.

NOTE: Any Illicit Drug includes marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically.

[1] Estimates include persons who received treatment specifically for any illicit drug or alcohol, as well as persons who received treatment but did not specify for what substance(s).

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30731 (5.68A)

Table H.48 **Received Substance Use Treatment at a Specialty Facility in the Past Year, by Past Year Dependence and/or Abuse Status: Numbers in Thousands, 2002**

Dependence and/or Abuse Status	SUBSTANCE FOR WHICH TREATMENT AT A SPECIALTY FACILITY WAS RECEIVED IN PAST YEAR			
	Any Illicit Drug	Alcohol	Both Any Illicit Drug and Alcohol	Any Illicit Drug or Alcohol[1]
DEPENDENCE				
None	626	588	230	1,045
Any Illicit Drug or Alcohol	787	961	479	1,301
Any Illicit Drug	662	434	370	757
Alcohol	401	824	359	879
Both Any Illicit Drug and Alcohol	277	296	250	336
DEPENDENCE OR ABUSE				
None	497	409	153	805
Any Illicit Drug or Alcohol	915	1,140	556	1,541
Any Illicit Drug	781	562	454	925
Alcohol	529	1,011	438	1,130
Both Any Illicit Drug and Alcohol	395	433	336	515

*Low precision; no estimate reported.

NOTE: Received Substance Use Treatment at a Specialty Facility refers to treatment received at a hospital (inpatient), a rehabilitation facility (inpatient or outpatient), or mental health center in order to reduce or stop drug or alcohol use, or for medical problems associated with drug or alcohol use.

NOTE: Any Illicit Drug includes marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically.

NOTE: Dependence or abuse is based on definitions found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV).

[1] Estimates include persons who received treatment specifically for any illicit drug or alcohol, as well as persons who received treatment but did not specify for what substance(s).

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30731 (5.71A)

Table H.49 Needed and Received Treatment for an Illicit Drug Problem in the Past Year among Persons Aged 12 or Older, by Demographic Characteristics: Numbers in Thousands, 2002

Demographic Characteristic	NEEDED TREATMENT FOR AN ILLICIT DRUG PROBLEM IN THE PAST YEAR			Percentage Who Received Treatment at a Specialty Facility Among Persons Who Needed Treatment
	Total	Received Treatment at a Specialty Facility	Did Not Receive Treatment at a Specialty Facility	
TOTAL	7,748	1,412	6,335	18.2
AGE				
12-17	1,414	142	1,272	10.1
18-25	2,680	287	2,393	10.7
26 or Older	3,654	983	2,670	26.9
GENDER				
Male	4,867	826	4,041	17.0
Female	2,881	587	2,294	20.4
HISPANIC ORIGIN AND RACE				
Not Hispanic or Latino	6,588	1,240	5,348	18.8
White	5,007	894	4,113	17.9
Black or African American	1,252	285	967	22.8
American Indian or Alaska Native	72	24	47	*
Native Hawaiian or Other Pacific Islander	29	1	28	*
Asian	107	9	98	*
Two or More Races	121	26	95	*
Hispanic or Latino	1,160	172	988	14.9

*Low precision; no estimate reported.

NOTE: Respondents were classified as needing treatment for an illicit drug problem if they met at least one of three criteria during the past year: (1) dependent on any illicit drug; (2) abuse of any illicit drug; or (3) received treatment for an illicit drug problem at a specialty facility (i.e., drug and alcohol rehabilitation facilities [inpatient or outpatient], hospitals [inpatient only], and mental health centers). Illicit Drugs include marijuana/hashish, cocaine (including crack), inhalants, hallucinogens, heroin, or prescription-type psychotherapeutic (nonmedical use).

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30731 (5.71B)

Table H.50 Needed and Received Treatment for an Illicit Drug Problem in the Past Year among Persons Aged 12 or Older, by Demographic Characteristics: Percentages, 2002

Demographic Characteristic	NEEDED TREATMENT FOR AN ILLICIT DRUG PROBLEM IN THE PAST YEAR			Percentage Who Received Treatment at a Specialty Facility Among Persons Who Needed Treatment
	Total	Received Treatment at a Specialty Facility	Did Not Receive Treatment at a Specialty Facility	
TOTAL	3.3	0.6	2.7	18.2
AGE				
12-17	5.7	0.6	5.1	10.1
18-25	8.6	0.9	7.7	10.7
26 or Older	2.0	0.5	1.5	26.9
GENDER				
Male	4.3	0.7	3.6	17.0
Female	2.4	0.5	1.9	20.4
HISPANIC ORIGIN AND RACE				
Not Hispanic or Latino	3.2	0.6	2.6	18.8
White	3.0	0.5	2.5	17.9
Black or African American	4.7	1.1	3.6	22.8
American Indian or Alaska Native	4.8	1.7	3.2	*
Native Hawaiian or Other Pacific Islander	3.5	0.1	3.4	*
Asian	1.2	0.1	1.1	*
Two or More Races	4.8	1.1	3.8	*
Hispanic or Latino	4.0	0.6	3.4	14.9

*Low precision; no estimate reported.

NOTE: Respondents were classified as needing treatment for an illicit drug problem if they met at least one of three criteria during the past year: (1) dependent on any illicit drug; (2) abuse of any illicit drug; or (3) received treatment for an illicit drug problem at a specialty facility (i.e., drug and alcohol rehabilitation facilities [inpatient or outpatient], hospitals [inpatient only], and mental health centers). Illicit Drugs include marijuana/hashish, cocaine (including crack), inhalants, hallucinogens, heroin, or prescription-type psychotherapeutic (nonmedical use).

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

Table H.51 **Perceived Need for Illicit Drug Treatment and Whether Made an Effort to Get Treatment in the Past Year among Persons Aged 12 or Older Classified as Needing but Not Receiving Treatment for an Illicit Drug Problem, by Demographic Characteristics: Numbers in Thousands, 2002**

Demographic Characteristic	Total Needing But Not Receiving Treatment[1]	FELT NEED FOR TREATMENT[2]			Did Not Feel Need for Treatment[2]
		Total	Made Effort	Made No Effort	
TOTAL	6,335	362	88	274	5,974
AGE					
12-17	1,272	62	*	*	1,210
18-25	2,393	126	*	*	2,267
26 or Older	2,670	173	*	*	2,497
GENDER					
Male	4,041	206	*	*	3,835
Female	2,294	155	*	*	2,139

*Low precision; no estimate reported.

[1] Needing But Not Receiving Treatment refers to respondents classified as needing treatment for illicit drugs, but have not received treatment for an illicit drug problem at a specialty facility (i.e., drug and alcohol rehabilitation facilities [inpatient or outpatient], hospitals [inpatient only], and mental health centers).

[2] Felt Need for Treatment includes persons who did not receive but felt they needed treatment for an illicit drug problem, as well as persons who received treatment at a location other than a specialty facility but felt they needed additional treatment.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30731 (5.82A)

Table H.52 Needed and Received Treatment for an Alcohol Problem in the Past Year among Persons Aged 12 or Older, by Demographic Characteristics: Numbers in Thousands, 2002

Demographic Characteristic	NEEDED TREATMENT FOR AN ALCOHOL PROBLEM IN THE PAST YEAR			Percentage Who Received Treatment at a Specialty Facility Among Persons Who Needed Treatment
	Total	Received Treatment at a Specialty Facility	Did Not Receive Treatment at a Specialty Facility	
TOTAL	18,638	1,549	17,089	8.3
AGE				
12-17	1,495	121	1,374	8.1
18-25	5,584	270	5,313	4.8
26 or Older	11,559	1,157	10,402	10.0
GENDER				
Male	12,686	1,100	11,586	8.7
Female	5,952	449	5,503	7.5
HISPANIC ORIGIN AND RACE				
Not Hispanic or Latino	16,131	1,410	14,721	8.7
White	13,306	1,120	12,187	8.4
Black or African American	1,995	236	1,759	11.8
American Indian or Alaska Native	186	33	153	*
Native Hawaiian or Other Pacific Islander	58	0	57	*
Asian	327	4	324	*
Two or More Races	258	17	241	6.7
Hispanic or Latino	2,507	139	2,368	5.5

*Low precision; no estimate reported.

NOTE: Respondents were classified as needing treatment for an alcohol problem if they met at least one of three criteria during the past year: (1) dependent on alcohol; (2) abuse of alcohol; or (3) received treatment for an alcohol problem at a specialty facility (i.e., drug and alcohol rehabilitation facilities [inpatient or outpatient], hospitals [inpatient only], and mental health centers).

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30731 (5.82B)

Table H.53 Needed and Received Treatment for an Alcohol Problem in the Past Year among Persons Aged 12 or Older, by Demographic Characteristics: Percentages, 2002

Demographic Characteristic	NEEDED TREATMENT FOR AN ALCOHOL PROBLEM IN THE PAST YEAR			Percentage Who Received Treatment at a Specialty Facility Among Persons Who Needed Treatment
	Total	Received Treatment at a Specialty Facility	Did Not Receive Treatment at a Specialty Facility	
TOTAL	7.9	0.7	7.3	8.3
AGE				
12-17	6.0	0.5	5.6	8.1
18-25	18.0	0.9	17.1	4.8
26 or Older	6.4	0.6	5.8	10.0
GENDER				
Male	11.2	1.0	10.2	8.7
Female	4.9	0.4	4.5	7.5
HISPANIC ORIGIN AND RACE				
Not Hispanic or Latino	7.8	0.7	7.1	8.7
White	8.0	0.7	7.4	8.4
Black or African American	7.4	0.9	6.6	11.8
American Indian or Alaska Native	12.6	2.2	10.4	*
Native Hawaiian or Other Pacific Islander	7.1	0.1	7.1	*
Asian	3.6	0.0	3.6	*
Two or More Races	10.3	0.7	9.6	6.7
Hispanic or Latino	8.6	0.5	8.1	5.5

*Low precision; no estimate reported.

NOTE: Respondents were classified as needing treatment for an alcohol problem if they met at least one of three criteria during the past year: (1) dependent on alcohol; (2) abuse of alcohol; or (3) received treatment for an alcohol problem at a specialty facility (i.e., drug and alcohol rehabilitation facilities [inpatient or outpatient], hospitals [inpatient only], and mental health centers).

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30731 (5.83A)

Table H.54 **Perceived Need for Alcohol Treatment and Whether Made an Effort to Get Treatment in the Past Year among Persons Aged 12 or Older Classified as Needing but Not Receiving Treatment for an Alcohol Problem, by Demographic Characteristics: Numbers in Thousands, 2002**

Demographic Characteristic	Total Needing But Not Receiving Treatment[1]	FELT NEED FOR TREATMENT[2]			Did Not Feel Need for Treatment[2]
		Total	Made Effort	Made No Effort	
TOTAL	17,089	761	266	495	16,328
AGE					
12-17	1,374	27	*	*	1,347
18-25	5,313	148	*	*	5,166
26 or Older	10,402	587	*	*	9,815
GENDER					
Male	11,586	468	*	*	11,118
Female	5,503	293	*	*	5,210

*Low precision; no estimate reported.

[1] Needing But Not Receiving Treatment refers to respondents classified as needing treatment for alcohol, but have not received treatment for an alcohol problem at a specialty facility (i.e., drug and alcohol rehabilitation facilities [inpatient or outpatient], hospitals [inpatient only], and mental health centers).

[2] Felt Need for Treatment includes persons who did not receive but felt they needed treatment for an alcohol problem, as well as persons who received treatment at a location other than a specialty facility but felt they needed additional treatment.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30804 (6.2A)

Table H.55 Serious Mental Illness in the Past Year among Persons Aged 18 or Older, by Age Group and Demographic Characteristics: Numbers in Thousands, 2002

Demographic Characteristic	Total	AGE GROUP (Years)		
		18-25	26-49	50 or Older
TOTAL	17,483	4,085	9,534	3,865
GENDER				
Male	6,041	1,560	3,322	1,159
Female	11,442	2,525	6,211	2,706
HISPANIC ORIGIN AND RACE				
Not Hispanic or Latino	15,760	3,486	8,667	3,607
White	12,639	2,744	7,010	2,885
Black or African American	2,032	466	1,089	477
American Indian or Alaska Native	161	35	69	*
Native Hawaiian or Other Pacific Islander	40	*	*	*
Asian	600	154	344	*
Two or More Races	289	63	139	*
Hispanic or Latino	1,724	599	867	258
EDUCATION				
< High School	3,591	944	1,506	1,142
High School Graduate	5,839	1,363	3,027	1,449
Some College	4,991	1,362	2,751	878
College Graduate	3,062	416	2,250	396
CURRENT EMPLOYMENT				
Full-Time	8,453	1,795	5,733	925
Part-Time	2,664	1,042	1,210	412
Unemployed	1,078	395	557	*
Other[1]	5,289	853	2,033	2,402

*Low precision; no estimate reported.

NOTE: Serious Mental Illness (SMI) is defined as having a diagnosable mental, behavioral, or emotional disorder that met the criteria found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV) and resulted in functional impairment that substantially interfered with or limited one or more major life activities. See Section B.6 of Appendix B of the *Results from the 2002 National Survey on Drug Use and Health: National Findings*.

[1] Retired person, disabled person, homemaker, student, or other person not in the labor force.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

30804 (6.2B)

Table H.56 Serious Mental Illness in the Past Year among Persons Aged 18 or Older, by Age Group and Demographic Characteristics: Percentages, 2002

Demographic Characteristic	Total	AGE GROUP (Years)		
		18-25	26-49	50 or Older
TOTAL	8.3	13.2	9.5	4.9
GENDER				
Male	6.0	10.0	6.7	3.2
Female	10.5	16.3	12.2	6.3
HISPANIC ORIGIN AND RACE				
Not Hispanic or Latino	8.5	13.7	10.1	4.9
White	8.4	14.2	10.4	4.6
Black or African American	8.8	11.5	9.2	6.6
American Indian or Alaska Native	12.5	16.1	11.1	*
Native Hawaiian or Other Pacific Islander	5.4	*	*	*
Asian	7.5	11.2	7.5	*
Two or More Races	13.6	15.7	13.8	*
Hispanic or Latino	6.9	10.9	6.1	4.8
EDUCATION				
< High School	9.6	13.7	10.9	6.9
High School Graduate	8.6	12.9	9.8	5.5
Some College	9.5	13.9	10.6	5.2
College Graduate	5.8	11.0	7.6	2.0
CURRENT EMPLOYMENT				
Full-Time	7.3	12.4	7.9	3.1
Part-Time	9.7	13.2	11.4	4.6
Unemployed	14.2	16.1	14.2	*
Other[1]	9.0	13.8	15.5	6.1

*Low precision; no estimate reported.

NOTE: Serious Mental Illness (SMI) is defined as having a diagnosable mental, behavioral, or emotional disorder that met the criteria found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV) and resulted in functional impairment that substantially interfered with or limited one or more major life activities. See Section B.6 of Appendix B of the *Results from the 2002 National Survey on Drug Use and Health: National Findings*.

[1] Retired person, disabled person, homemaker, student, or other person not in the labor force.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

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Table H.57 Received Mental Health Treatment/Counseling in the Past Year among Persons Aged 18 or Older, by Past Year Serious Mental Illness and Demographic Characteristics: Percentages, 2002

Demographic Characteristic	Total	SERIOUS MENTAL ILLNESS[1]	
		Yes	No
TOTAL	13.0	47.9	9.9
AGE			
18-25	10.6	34.2	7.0
26-49	14.6	54.4	10.4
50 or Older	12.0	46.4	10.3
GENDER			
Male	8.7	39.5	6.8
Female	17.0	52.3	12.8
HISPANIC ORIGIN AND RACE			
Not Hispanic or Latino	13.7	49.0	10.4
White	14.7	51.9	11.3
Black or African American	8.5	36.9	5.8
American Indian or Alaska Native	17.8	*	11.9
Native Hawaiian or Other Pacific Islander	3.9	*	3.5
Asian	8.5	*	6.6
Two or More Races	16.6	*	13.1
Hispanic or Latino	8.2	37.8	6.0
EDUCATION			
< High School	11.7	39.3	8.7
High School Graduate	11.7	45.1	8.5
Some College	14.3	51.7	10.4
College Graduate	14.4	57.1	11.8
CURRENT EMPLOYMENT			
Full-Time	11.3	45.0	8.6
Part-Time	14.2	50.7	10.3
Unemployed	14.2	42.4	9.6
Other[2]	15.8	52.2	12.2

*Low precision; no estimate reported.

NOTE: Mental Health Treatment/Counseling is defined as having received inpatient care, outpatient care, or using prescription medication for problems with emotions, nerves, or mental health. Respondents were not to include treatment for alcohol or drug use. Respondents with missing treatment/counseling information are excluded.

[1] Serious Mental Illness (SMI) is defined as having a diagnosable mental, behavioral, or emotional disorder that met the criteria found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV) and resulted in functional impairment that substantially interfered with or limited one or more major life activities. See Section B.6 of Appendix B of the *Results from the 2002 National Survey on Drug Use and Health: National Findings*.

[2] Retired person, disabled person, homemaker, student, or other person not in the labor force.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

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Table H.58 Received Mental Health Treatment/Counseling in the Past Year among Persons Aged 12 to 17, by Age Group and Demographic Characteristics: Percentages, 2002

Demographic Characteristic	Total	AGE GROUP (Years)		
		12-13	14-15	16-17
TOTAL	19.3	19.8	19.9	18.2
GENDER				
Male	18.0	20.9	17.5	15.4
Female	20.7	18.5	22.3	21.1
HISPANIC ORIGIN AND RACE				
Not Hispanic or Latino	19.6	20.3	20.1	18.5
White	20.1	20.4	20.4	19.5
Black or African American	19.3	22.2	19.6	15.6
American Indian or Alaska Native	*	*	*	*
Native Hawaiian or Other Pacific Islander	*	*	*	*
Asian	13.4	14.5	15.0	10.4
Two or More Races	20.7	16.5	23.1	24.8
Hispanic or Latino	17.5	16.9	19.0	16.5

*Low precision; no estimate reported.

NOTE: Mental Health Treatment/Counseling for youths is defined as having received treatment or counseling from any of 10 specific sources (e.g., private therapist, school counselor, special school program) for emotional or behavioral problems NOT caused by alcohol or drug use. Youths who answered none of the source of treatment questions with a "yes" and answered "no" four or fewer times were excluded from this analysis. See Table 6.45 for a list of the 10 specific sources of treatment.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

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D-17: Mid-Year 2000 Preliminary Emergency Department Data from the Drug Abuse Warning Network
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(Continued on next page)

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